ORDER NO. AD9306190C8

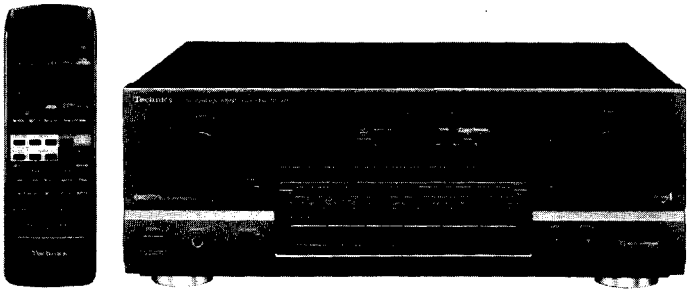
Service Manual

AV Control Stereo Receiver

Receiver

DOLBY SURROUND PRO • LOGIC *

SA-GX550



Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EB)	Great Britain.	
(EG)	Germany.	
(G)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	

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SPECIFICATIONS (DIN 45 500)

■ AMPLIFIER SECTION

Power output (at 240V)	
DIN 1kHz (T.H.D. 1%)	2×100W (4Ω)
20Hz–20kHz continuous power output both channels driven	2×65W (8Ω)
Total harmonic distortion	
rated power at 20Hz–20kHz	0.05% (8Ω)
half power at 1kHz	0.03% (8Ω)
Power output at the Dolby Pro Logic operation	
DIN 1kHz (T.H.D. 1%)	
Front	2×60W (4Ω)
Center	60W (4Ω)
Rear	20W (4Ω)
Intermodulation distortion	
rated power at 60Hz: 7kHz=4: 1, SMPTE	0.5% (8Ω)
Power bandwidth	
both channels driven, −3dB	10Hz–40kHz (8Ω)
Damping factor	40 (8Ω)
Input sensitivity and impedance	
PHONO	3mV/47kΩ
CD, VCR 1, VCR 2, TAPE/DCC	200mV/22kΩ
S/N at rated power (8Ω)	
PHONO	70dB (IHF, A: 80dB)
CD, VCR 1, VCR 2, TAPE/DCC	75dB (IHF, A: 88dB)
Frequency response	
PHONO	RIAA standard curve (30Hz–15kHz) ±0.8dB
CD, VCR 1, VCR 2, TAPE/DCC	10Hz–40kHz, ±3dB
Tone controls	
BASS	50Hz, +10 to −10dB
TREBLE	20kHz, +10 to −10dB
Loudness control (volume at −30dB)	50Hz, +9dB
Output voltage	
VCR 1 OUT, TAPE/DCC REC (OUT)	200mV
Channel balance (250Hz–6.3kHz)	±1dB
Channel separation	55dB
Headphones output level and impedance	430mV/330Ω
Load impedance	
A or B	4–16Ω
A and B	8–16Ω

■ FM TUNER SECTION

Frequency range	87.50–108.00MHz
Sensitivity	
S/N 30dB	1.5μV/75Ω
S/N 26dB	1.3μV/75Ω
S/N 20dB	1.2μV/75Ω
IHF usable sensitivity	(IHF '58) 1.5μV/75Ω
IHF 46dB stereo quieting sensitivity	22μV/75Ω
Total harmonic distortion	
MONO	0.2%
STEREO	0.3%
S/N	
MONO	60dB (75dB, IHF)
STEREO	58dB (71dB, IHF)
Frequency response	20Hz–15kHz, +1dB, −2dB
Alternate channel selectivity ±400kHz	65dB
Capture ratio	1.0dB
Image rejection at 98MHz	40dB
IF rejection at 98MHz	70dB
Spurious response rejection at 98MHz	70dB

Technics

AM suppression	50dB
Stereo separation	
1kHz	40dB
Carrier leak	
19kHz	−30dB (−35dB, IHF)
38kHz	−50dB (−55dB, IHF)
Channel balance (250Hz−6.3kHz)	±1.5dB
Limiting point	1.2μV
Bandwidth	
IF amplifier	180kHz
FM demodulator	1000kHz
Antenna terminal(s)	75Ω (unbalanced)

■ AM TUNER SECTION

• For (E, EB, G, GN) areas.

Frequency range	
MW [For (E, EB) areas.]	522−1611kHz (9kHz steps) 530−1620kHz (10kHz steps)
[For (G, GN) areas.]	531−1602kHz (9kHz steps) 530−1600kHz (10kHz steps)
LW [For (E, EB) areas.]	144−288kHz
[For (G, GN) areas.]	153−279kHz
Sensitivity (S/N 20dB)	
MW	20μV, 330μV/m
LW	45μV
Selectivity	
MW (at 999kHz)	55dB
LW (at 252kHz)	55dB
Image rejection	
MW (at 999kHz)	40dB
LW (at 252kHz)	40dB
IF rejection	
MW (at 999kHz)	55dB
LW (at 252kHz)	55dB

• For (EG) area.

Frequency range	522kHz~1611kHz (9-kHz steps) 530kHz~1620kHz (10-kHz steps)
Selectivity (S/N 20dB)	20μV, 330μV/m
Selectivity at 999kHz	55dB
Image rejection at 999kHz	40dB
If rejection at 999kHz	55dB

■ VIDEO SECTION

Output voltage at 1V input (unbalanced)	1±0.1Vp-p
Maximum input voltage	1.5Vp-p

■ GENERAL

Power consumption	
For (E, EB, EG, GN) areas.	280W
For (G) area.	300W
Power supply	
For (E, EB, GN) areas.	AC 50Hz/60Hz, 230V−240V
For (EG) area.	AC 50/60Hz, 230V
For (G) area.	AC 50Hz/60Hz, 110−127V/220−240V
Dimensions (W×H×D)	430×158×352mm
Weight	10.8kg

■ REMOTE CONTROL TRANSMITTER

Control keys	
For (E, EB, EG) areas.	53 keys
For (G, GN) areas.	55 keys
Dimensions (W×H×D)	70×28×215mm (2-3/4″×1-3/32″×8-15/32″)
Weight	160g (5.6oz)
Power source	two "AAA", (UM-4/R03)

Notes:

1. Design and specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

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■ CAUTION FOR AC MAINS LEAD

[For (EB) area.]

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⓐ or the BSI mark ♡ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

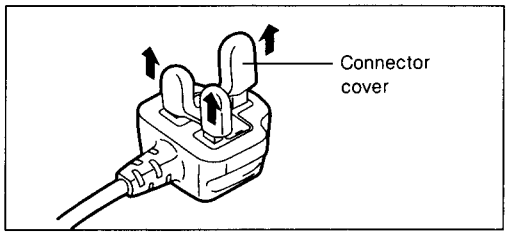
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚ .

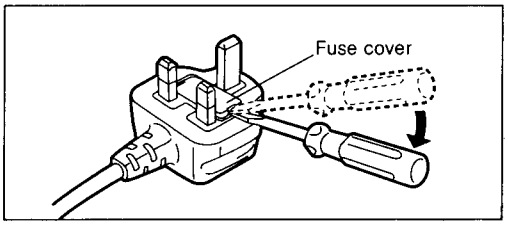
Before use

Remove the connector cover as follows.

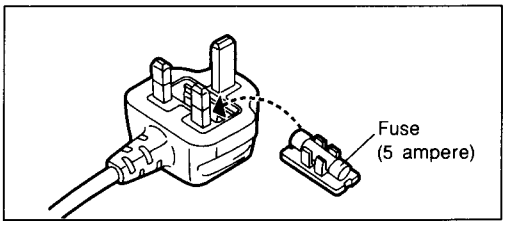


How to replace the fuse

1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover

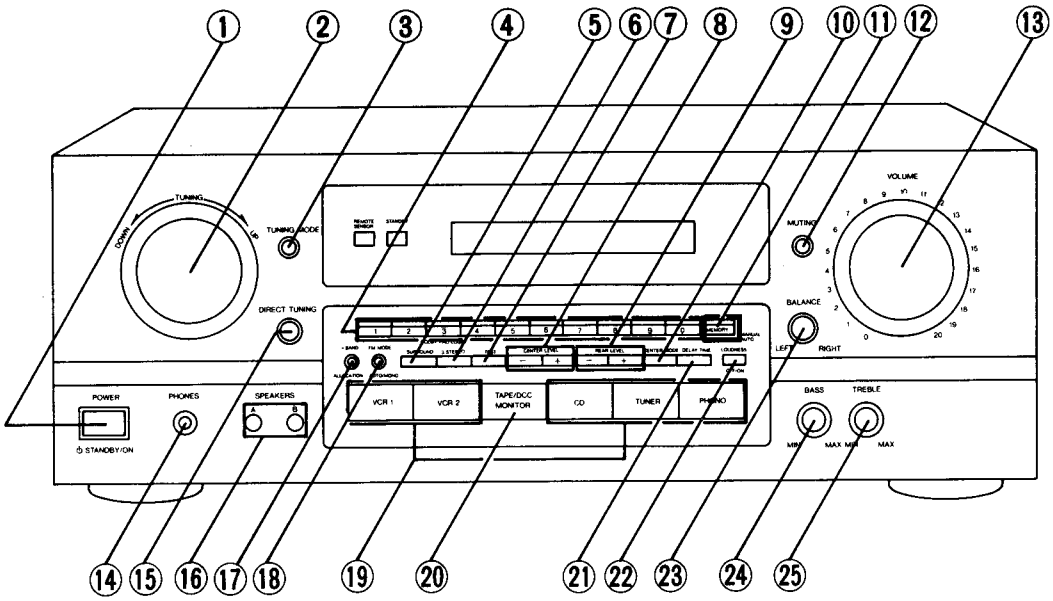


[For (GN) area.]

THIS TUNER/RECEIVER IS CAPABLE OF RECEIVING THE NEW AM STEREO BROADCASTS FROM THE AM BAND RADIO STATIONS. HOWEVER LIKE MANY TUNERS AND RECEIVERS CURRENTLY AVAILABLE ON THE MARKET IT WILL REPRODUCE THIS AM STEREO SIGNAL ONLY IN AM MONO, WHICH, IN EFFECT, IS OF NO LESSER QUALITY THAN YOUR EXISTING AM MONO TUNER/RECEIVER.

■ FRONT PANEL CONTROLS

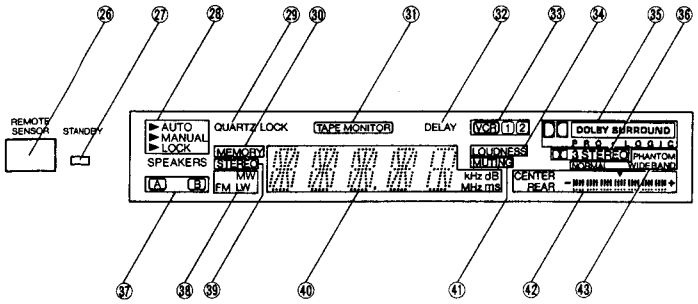
Control section



No.	*Name*
①	**Power " ⏻ STANDBY/ON" switch (POWER, ⏻ STANDBY/ON)** Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
②	**Tuning control (TUNING)**
③	**Tuning mode select button (TUNING MODE)**
④	**Numeric buttons (1 – 0)**
⑤	**DOLBY PRO LOGIC SURROUND ON/OFF button (SURROUND)**
⑥	**DOLBY PRO LOGIC 3 STEREO ON/OFF button (3 STEREO)**
⑦	**Test signal ON/OFF button (TEST)**
⑧	**Center level adjust button (CENTER LEVEL)**
⑨	**Rear level adjust button (REAR LEVEL)**
⑩	**Center mode select button (CENTER MODE)**

No.	*Name*
⑪	**Memory button (MEMORY)**
⑫	**Muting button (MUTING)**
⑬	**Volume control (VOLUME)**
⑭	**Headphone jack (PHONES)**
⑮	**Direct tuning button (DIRECT TUNING)**
⑯	**Speaker select buttons (SPEAKERS)**
⑰	**Band select button (BAND)**
⑱	**FM mode select button (FM MODE)**
⑲	**Input select buttons**
⑳	**Tape/DCC monitor button (TAPE/DCC MONITOR)**
㉑	**Delay time adjust button (DELAY TIME)**
㉒	**Loudness ON/OFF button (LOUDNESS)**
㉓	**Balance control (BALANCE)**
㉔	**Bass control (BASS)**
㉕	**Treble control (TREBLE)**

Display section

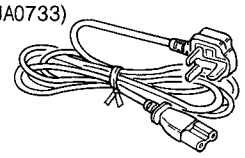


No.	Name
(26)	**Remote control signal receptor**
(27)	**"STANDBY" indicator** When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
(28)	**Tuning-mode indicators**
(29)	**Quartz lock indicator**
(30)	**Memory indicator**
(31)	**Tape monitor indicator**

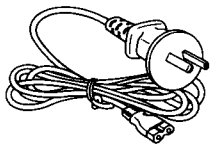
No.	Name
(32)	**Delay time indicator**
(33)	**VCR select indicator**
(34)	**Loudness indicator**
(35)	**DOLBY PRO LOGIC SURROUND indicator**
(36)	**DOLBY PRO LOGIC 3 STEREO indicator**
(37)	**Speaker select indicators**
(38)	**Band indicators**
(39)	**FM stereo indicator**
(40)	**Input selector/frequency display**
(41)	**Muting indicator**
(42)	**Center/rear level display**
(43)	**Center mode indicators**

■ ACCESSORIES

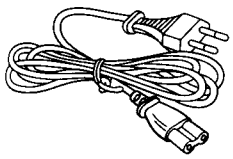
- AC power supply cord..... 1 pc.
  For (EB) area.
  (VJA0733)



  For (GN) area.
  (RJA0036-K)



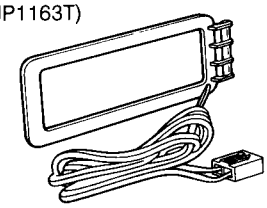
  For (E, EG, G) areas.
  (RJA0019-2K)



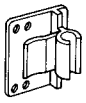
- Batteries "AAA" (R03/UM-4)
  for remote control transmitter..... 2 pcs.

Note: Thease are avaliable on sale route.

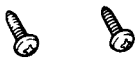
- AM loop antenna set..... 1 pc.
  (SJP1163T)



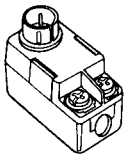
- AM antenna holder ..... 1 pc.
  (SMA233-1M)



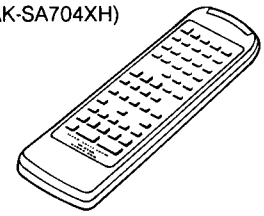
- Screw ..... 2 pcs.
  (XTN3+10AFZ)



- Antenna plug..... 1 pc.
  For (G, GN) areas.
  (RFE0014)



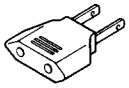
- Remote control transmitter ..... 1 pc.
  For (E, EB, EG) areas.
  (RAK-SA704XH)



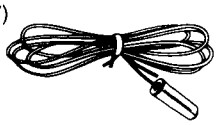
  For (G, GN) areas.
  (RAK-SA903XH)

- Attachment plug..... 1 pc.
  For (EB) area.
  (SJP9009)

- Power plug adaptor..... 1 pc.
  For (G) area.
  (SJP5213-2)



- FM indoor antenna ..... 1 pc.
  (RSA0007)

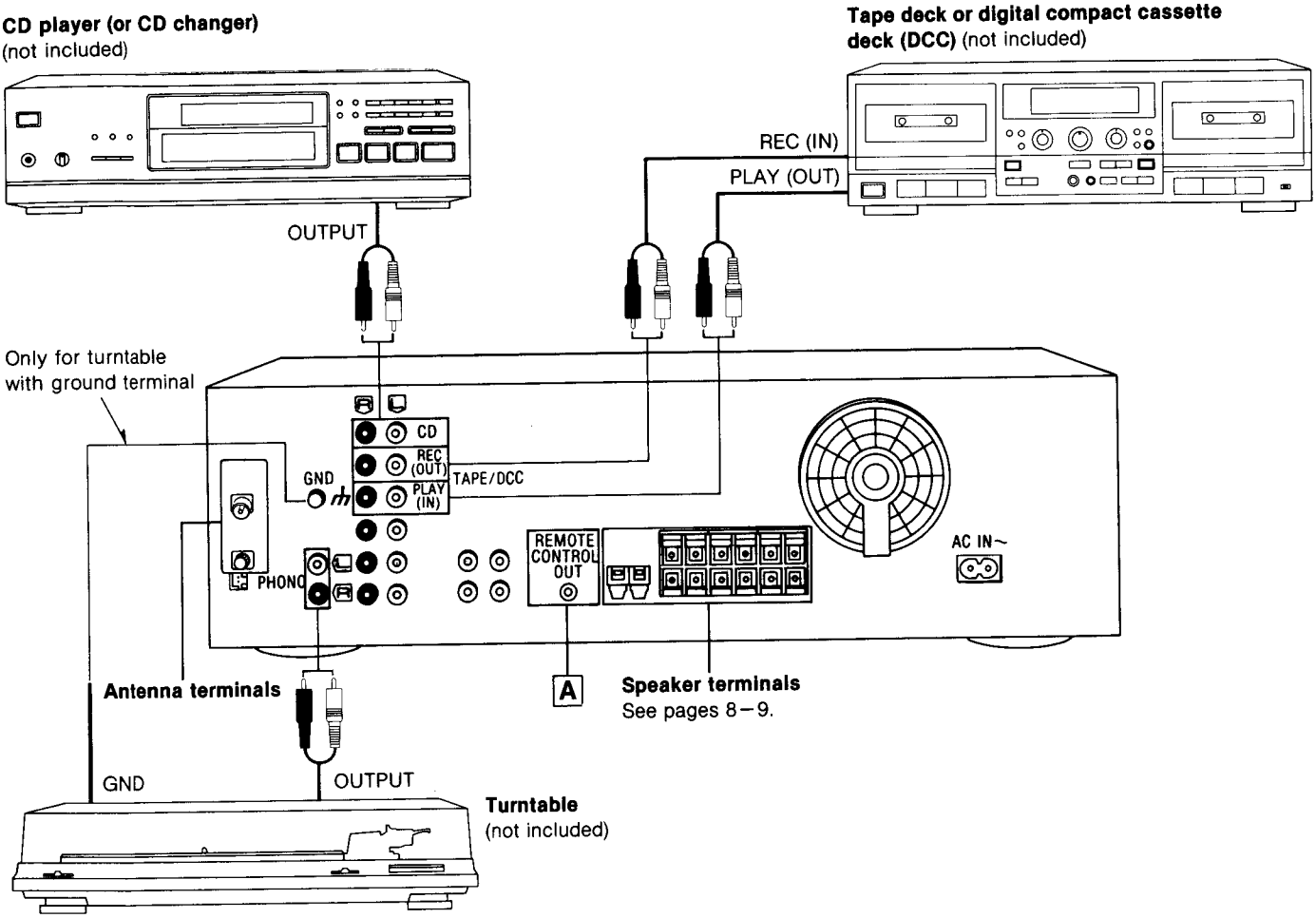


- Seal for remote control transmitter ..... 1 pc.
  Not supplied for (G, GN) areas.

■ EQIPMENT CONNECTIONS

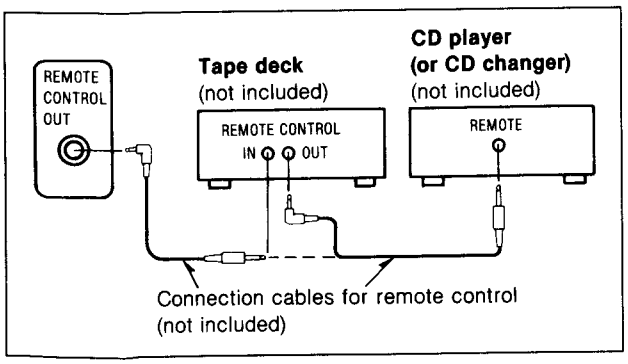
Connecting audio equipment

Stereo connection cable (not included)
White (L)
Red (R)



A "REMOTE CONTROL OUT" terminal

Connect the connection cable for the remote control to a Technics tape deck and/or CD player (or CD changer) which has the appropriate remote control terminal as shown below. If a tape deck is not being used, the CD player (or CD changer) can be connected directly (dotted line).



For a CD player (or CD changer) with a remote control sensor the above connection is not necessary.

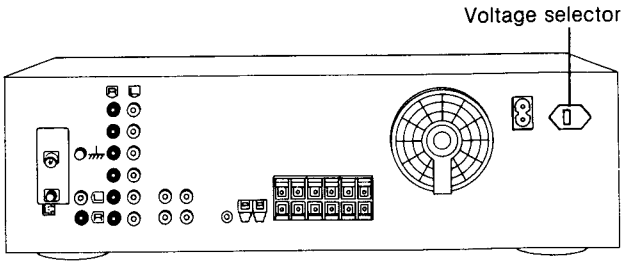
To set the power voltage

[For (G) area.]

Set the voltage selector to the voltage setting for the area in which the unit will be used.

Note

Note that this unit will be seriously damaged if this setting is not made correctly.



Connecting video equipment

Stereo connection cable (not included)
White (L)
Red (R)

Second VCR (for playback only)
(not included)

Monitor TV
(not included)

Video connection cables
(not included)

VIDEO
IN

AUDIO
OUT

VIDEO
OUT

TV
MONITOR
VCR2
IN
OUT
VCR1
IN
IN
OUT
AUDIO
VIDEO

AC IN~

Cooling fan
The cooling fan operates at high power output levels only.

Video connection cables
(not included)

AUDIO
IN

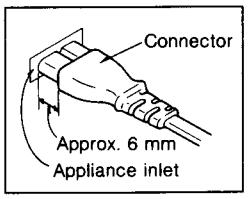
AUDIO
OUT

VIDEO
OUT

VIDEO
IN

VCR
(not included)

[For (E, EB, EG, G) areas.]



Even when the connector is perfectly inserted, the front part of the connector jut out as shown in the drawing. However there is no problem using the unit.

AC power supply cord
(included)

Connect this cord after all other cables and cords are connected.

Household
AC outlet

To connect a video deck with 21 pin scart terminal

This unit

VCR (not included)

AV IN

AUDIO
IN

AUDIO
OUT

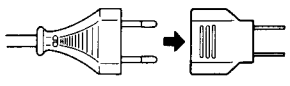
VIDEO
OUT

VIDEO
IN

21 pin scart cable (not included)

(For (EB) area only.)
BE SURE TO READ THE CAUTION FOR THE AC POWER SUPPLY CORD ON PAGE 2 BEFORE CONNECTION.

[For (G) area.]
If the power plug will not fit your socket, use the power plug adaptor (included).

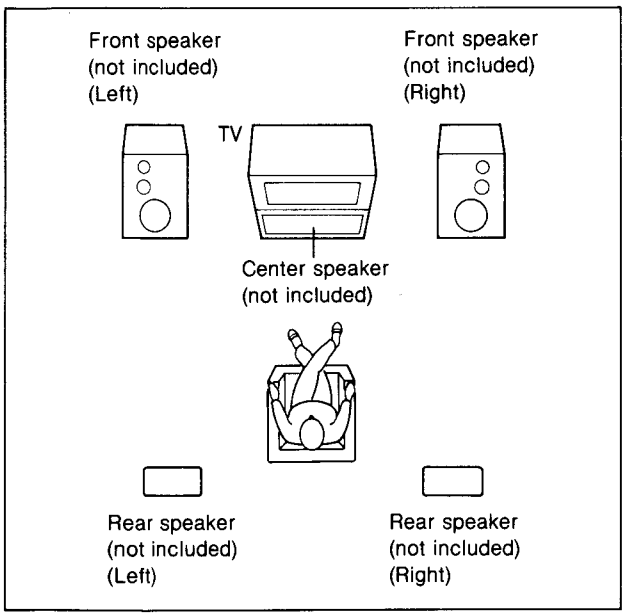


■ SPEAKER CONNECTIONS

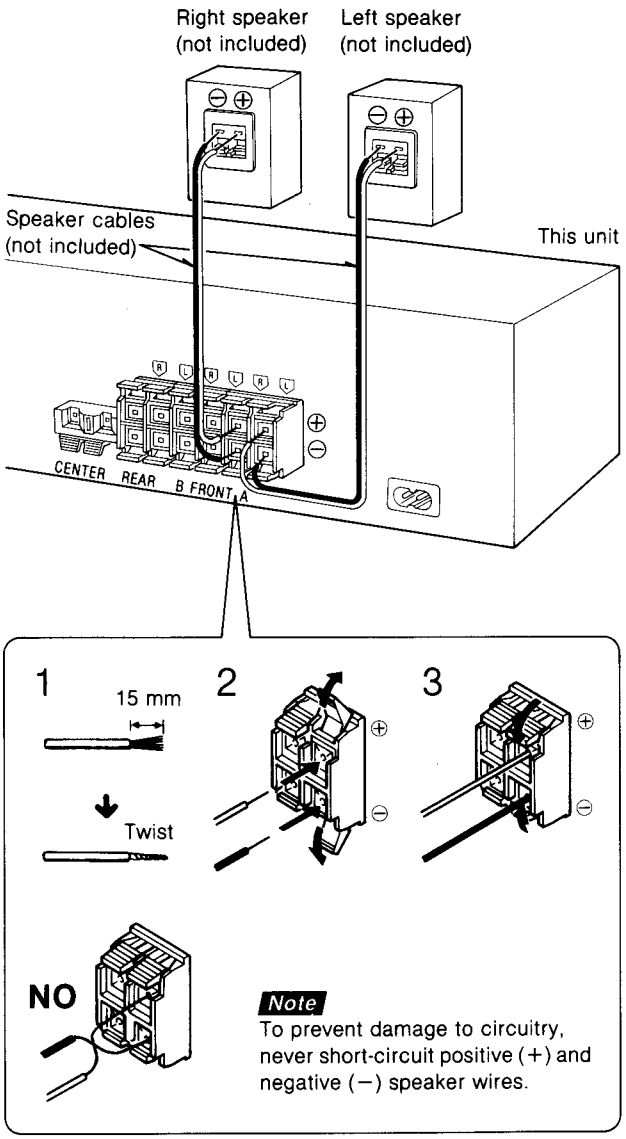
Placement of speakers

As well as enjoying normal stereo reproduction with both the left and right front speakers connected, a center speaker and rear speakers can also be connected to the main unit in order to enjoy playback using the Dolby Pro-Logic Systems.

The illustration below shows where to place the speakers when enjoying sound with Dolby Pro-Logic systems.
The listening position at which the effect is the greatest is a position slightly to the rear of a center position of five-speaker systems.
However the position should be adjusted to your personal preference, because the effect varies to some degree depending upon the type of music and the music source.



Connection of front speakers



■ "B" terminals

For connection to a second pair of speakers.

■ Speaker impedance

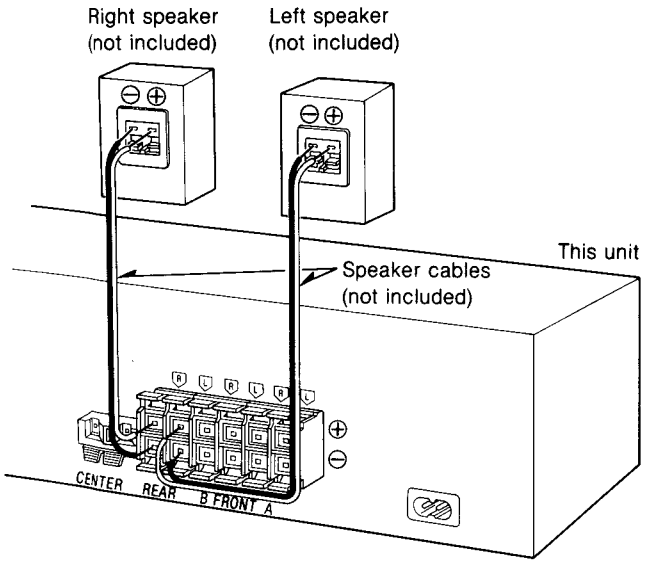
When only the "A" or only the "B" speakers are connected:

The impedance of the speaker used with this unit must be 4 – 16 Ω.

When both the "A" and the "B" speakers are connected simultaneously:

The impedance of the speaker used with this unit must be 8 – 16 Ω.

Connection of rear speakers



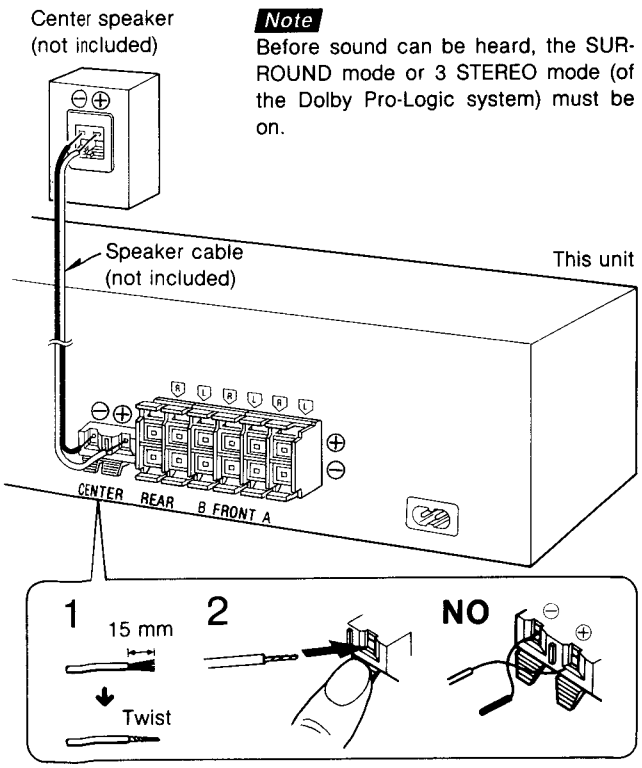
Note

Before sound can be heard, the SURROUND mode (of the Dolby Pro-Logic system) must be on and both rear speakers must be connected.

■ Speaker impedance

The impedance of any speaker used with this unit must be 4 – 16 Ω.

Connection of center speaker



Note

Before sound can be heard, the SURROUND mode or 3 STEREO mode (of the Dolby Pro-Logic system) must be on.

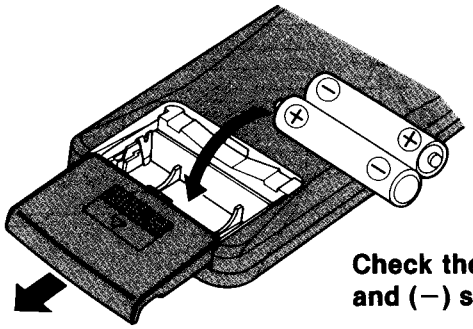
■ Speaker impedance

The impedance of any speaker used with this unit must be 4 – 16 Ω.

■ HOW TO USE THE REMOTE CONTROL TRANSMITTER

• Battery installation

Insert the batteries included with this unit as shown below.



When you need to replace these batteries

Use two UM-4 "AAA", IEC R03 (1.5 V) or equivalent batteries.

Use of batteries

Do not mix old and new batteries, or batteries of different types (carbon and alkaline, etc.).

Always remove old, weak or worn-out batteries promptly and dispose of them properly.

The battery life is about one year.
Although the battery life varies depending on how often the device is used, the batteries should be replaced about once every year on the average.

The batteries should be replaced if commands from the remote control transmitter do not operate the unit even when transmitter is held close to the front panel.

Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.

If the remote control is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.

If a battery leaks, remove all batteries and dispose of them properly. Thoroughly clean the battery compartment before inserting new batteries.
If the electrolyte comes into contact with skin or clothes, flush with water immediately.

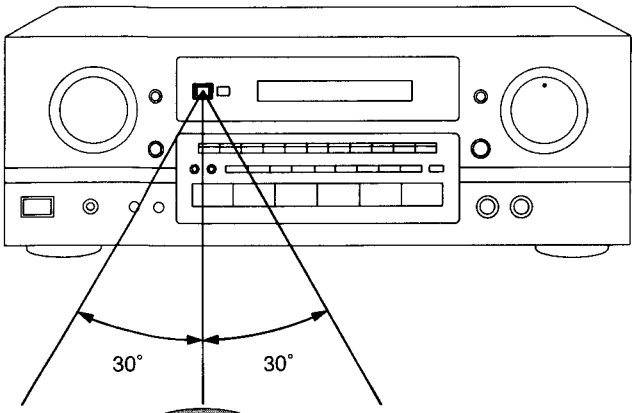
Keep batteries out of reach of children.

Do not use rechargeable (nickel-cadmium) type batteries.

Do not attempt to recharge alkaline or carbon batteries.

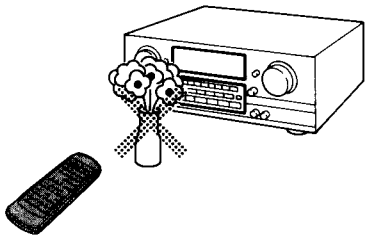
• Method for use

Use the remote control within 60 degrees and within 7 meters facing directly toward the receiver's remote control signal receptor.

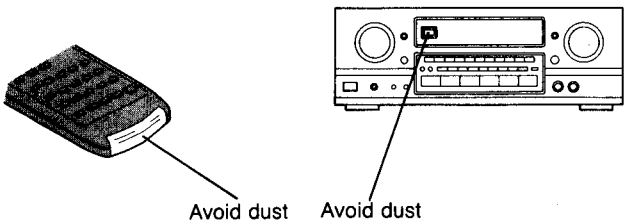


About 7 meters in front of the sensor
(The actual range will depend on the angle at which the remote control is used.)

Operation notes



Aim the remote control's transmission window toward the unit's sensor. Avoid any obstacles.



Be sure the transmission window and the unit's sensor are free from dust. Excessive dust might affect performance.

The operation may not be correct if direct sunlight or another strong light source strikes the receiving sensor of this unit. If there is a problem, place the unit away from the light source.

When operating a TV, VCR or a CD player (or CD changer) with a remote control sensor, face this remote control toward the remote control sensor of the unit to be operated.

• Before use

This remote control transmitter can be used to operate units manufactured by this company other than this receiver unit, including CD players (or CD changers), tape decks and also TVs and VCRs.

Preparations before use

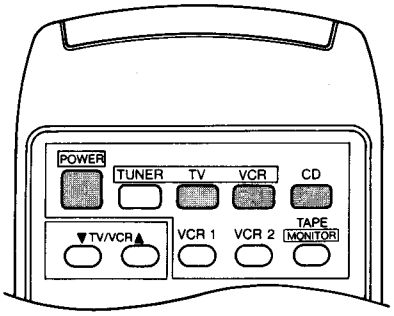
- Check the appropriate connection of the power cords and connection cables for the remote control in order to operate CD players (or CD changers) and tape decks correctly. (See page 6 of the operating instructions for the main unit.)
- Make sure that the power of each unit is set to the "ON" position, before beginning the operations.

Note

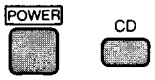
If you operate a TV, VCR or CD player (or CD changer) using this remote control, the unit may fail to operate due to the differing nature of the remote control signal.

If the remote control fails to operate:

It is necessary to reprogram the signal within the remote control by following this simple procedure.

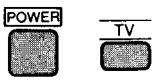


For CD player (or CD changer) operation



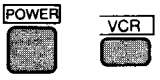
Press POWER and CD simultaneously, hold for 2 seconds.

For TV operation



Press POWER and TV simultaneously, hold for 2 seconds.

For VCR operation

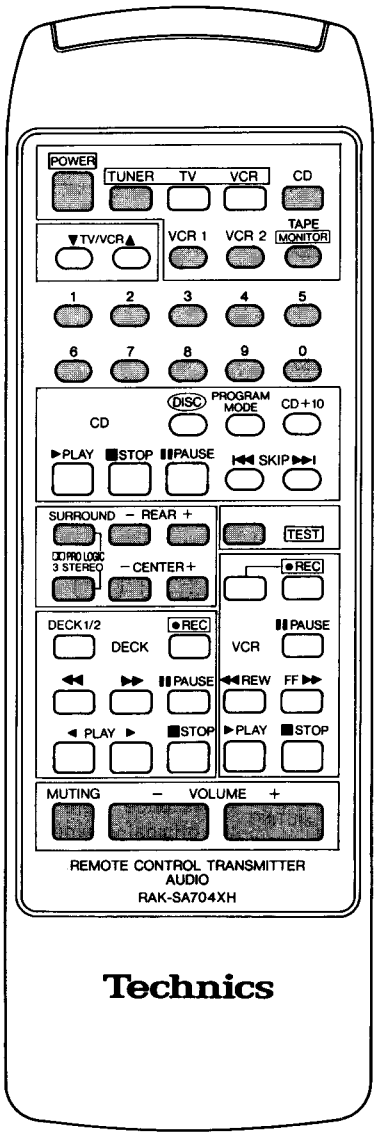


Press POWER and VCR simultaneously, hold for 2 seconds.

To restore the previous memory contents, carry out the same operations one more time.

Depending on the model, there may be cases where operation is still not possible even if the remote control signal is switched over due to differences in frequency range characteristics.

• Operating the receiver
• For (E, EB, EG) areas.



Basic operations

To turn the unit ON/OFF	TUNER → POWER Once the unit has been set to ON, it can be turned ON and OFF simply by pressing POWER. (See *Note* below.)
To turn the tape monitor function ON/OFF	TAPE MONITOR To listen to sources other than a tape or DCC, be sure to turn off the tape monitor indicator on the main unit.
To select an input source	TUNER CD VCR 1 VCR 2
To turn the Dolby Pro Logic SURROUND mode ON/OFF	SURROUND
To turn the Dolby Pro Logic 3 STEREO mode ON/OFF	3 STEREO
To adjust the output level of the rear speakers	SURROUND → – REAR +
To adjust the output level of the center speaker	SURROUND or 3 STEREO → – CENTER +
To output a test signal	TEST Press once more to stop a test signal.
To mute the sound level	MUTING Press once more to return to the original volume.
To adjust the volume level	– VOLUME +

Note

After carrying out the operation for turning the TV or VCR ON or OFF, always press TUNER before pressing POWER when turning the receiver ON and OFF.

To listen to radio broadcasts

TUNER → 1 2 3 4 5 / 6 7 8 9 0

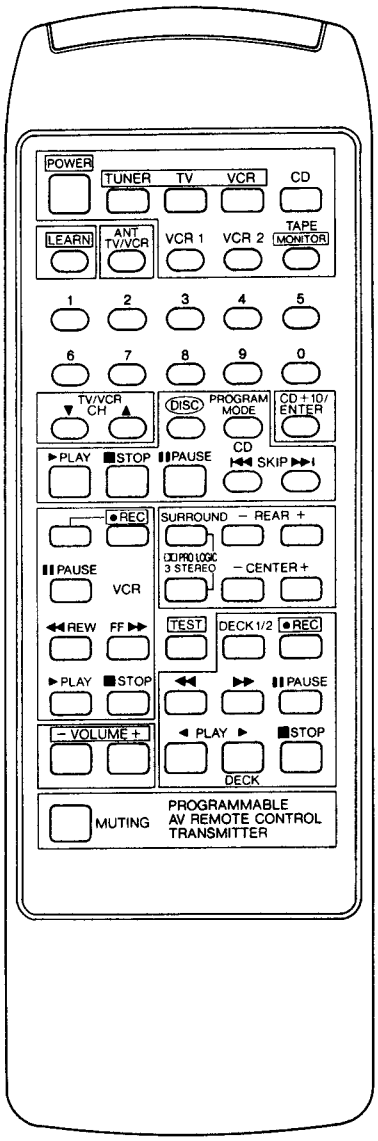
Specify the preset channel using the numeric button(s).

(Example: Channel 12)

1 → 2

(Within 2 sec.)

• Operating the receiver
• For (G, GN) areas.



Basic operations

To turn the power supply ON/OFF	TUNER ➡ POWER Once the power has been set to ON, it can be turned ON and OFF simply by pressing POWER. (See *Note* below.)
To turn the tape monitor function ON/OFF	TAPE MONITOR To listen to sources other than a tape or DCC, be sure to turn off the tape monitor indicator on the main unit.
To select an input source	TUNER CD VCR 1 VCR 2
To turn the Dolby Pro Logic SURROUND mode ON/OFF	SURROUND
To turn the Dolby Pro Logic 3 STEREO mode ON/OFF	3 STEREO
To adjust the output level of the rear speakers	SURROUND ➡ – REAR +
To adjust the output level of the center speaker	SURROUND or 3 STEREO ➡ – CENTER +
To output a test signal	TEST Press once more to stop a test signal.
To mute the sound level	MUTING Press once more to return to the original volume.
To adjust the volume level	– VOLUME +

Note

After carrying out the operation for turning the power of the TV or VCR ON or OFF, always press TUNER before pressing POWER when turning the power of the receiver ON and OFF.

To listen to radio broadcasts

TUNER ➡ 1 2 3 4 5 / 6 7 8 9 0

Specify the preset channel using the numeric button(s).

(Example: Channel 12)

1 ⟶ 2

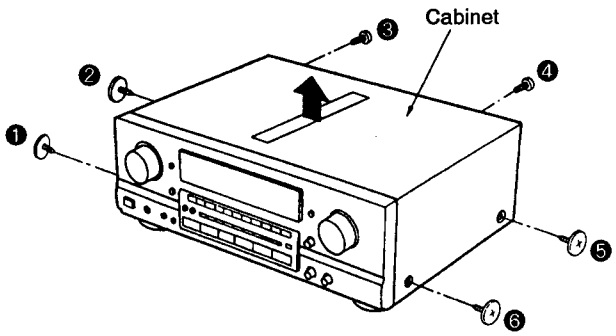
(Within 2 sec.)

■ DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref.No. 1	Removal of the cabinet

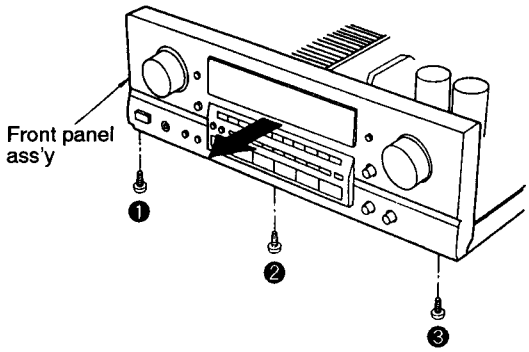
Procedure 1



• Remove the 6 screws(❶~❻).

Ref.No. 2	Removal of the front panel ass'y

Procedure 1→2

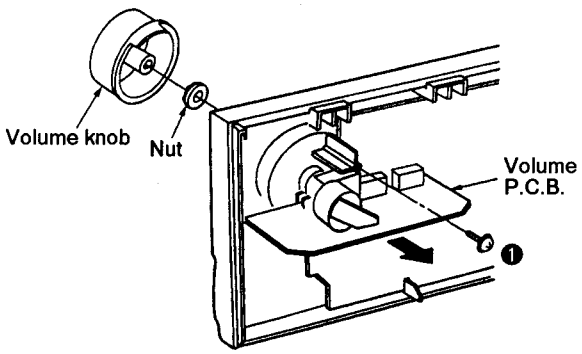


1. Remove the 3 screws(❶~❸).
2. Remove the front panel ass'y in the direction of arrow.

Ref.No. 3	Removal of the volume P.C.B.

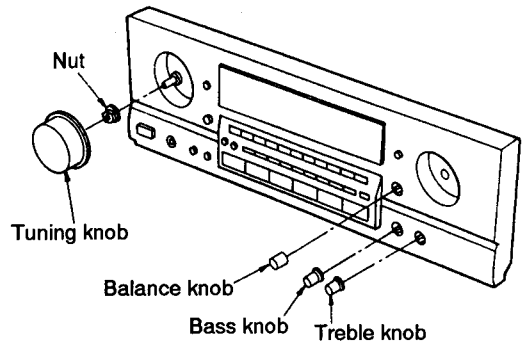
Procedure 1→2→3

1. Pull out the volume knob.
2. Remove the nut.
3. Remove the 1 screw(❶).
4. Remove the volume P.C.B. in the direction of arrow.

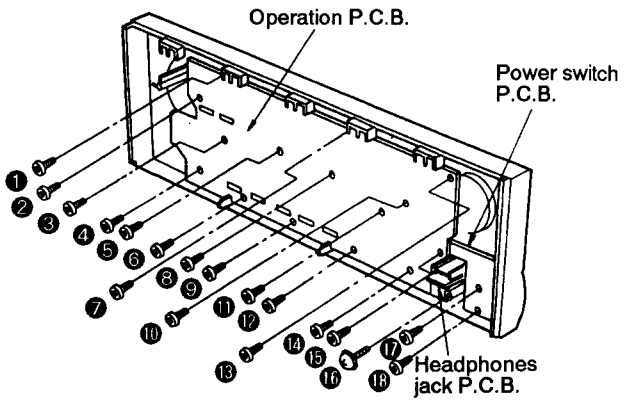


Ref.No. 4	Removal of the operation P.C.B.

Procedure 1→2→3→4



1. Pull out the tuning knob, balance knob, bass knob and treble knob.
2. Remove the nut.

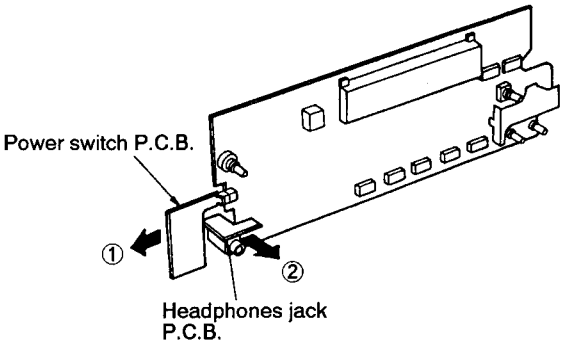


3. Remove the 18 screws(❶~⓲).

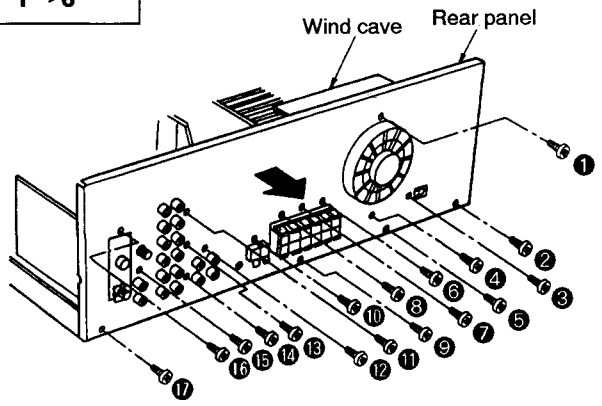
Ref.No. 5	Removal of the power switch P.C.B. and headphones jack P.C.B.
Procedure 1→2→3→4→5	

■ **POWER SWITCH P.C.B.**
- Remove the power switch P.C.B. in the direction of arrow ①.

■ **HEADPHONES JACK P.C.B.**
- Remove the headphones jack P.C.B. in the direction of arrow ②.

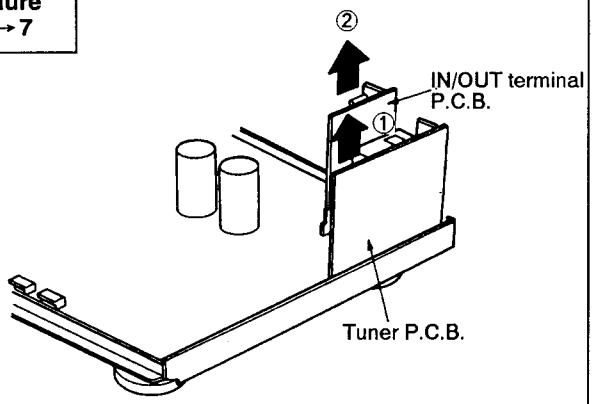


Ref.No. 6	Removal of the rear panel
Procedure 1→6	



1. Remove the 17 screws(❶ ~ ⓱).
2. Remove the wind cave.
3. Remove the rear panel in the direction of arrow.

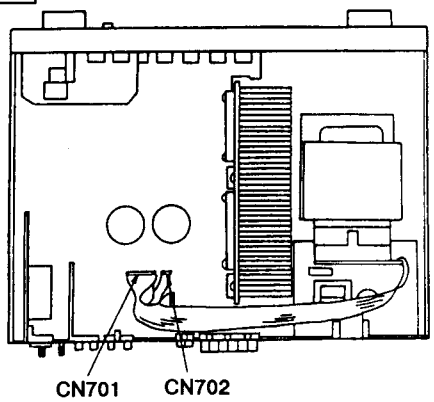
Ref.No. 7	Removal of the tuner P.C.B. and IN/OUT terminal P.C.B.
Procedure 1→6→7	



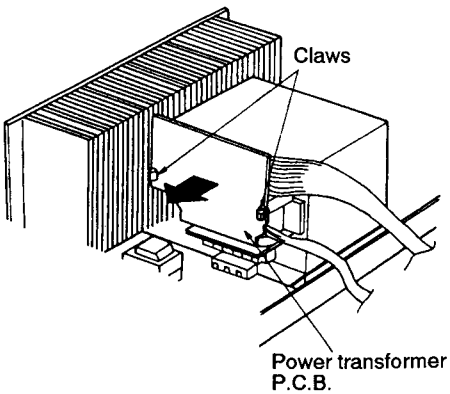
■ **TUNER P.C.B.**
- Remove the tuner P.C.B. in the direction of arrow ①.

■ **IN/OUT TERMINAL P.C.B.**
- Remove the IN/OUT terminal P.C.B. in the direction of arrow ②.

Ref.No. 8	Removal of the power transformer P.C.B.
Procedure 1→6→8	



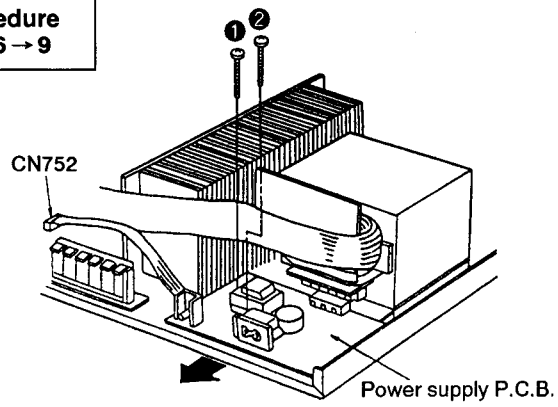
1. Remove the 2 flat cables(CN701, CN702).



2. Remove the 2 claws.
3. Remove the power transformer P.C.B. in the direction of arrow.

Ref.No. 9	Removal of the power supply P.C.B.

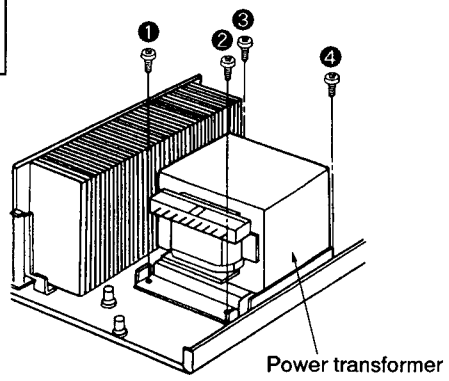
Procedure 1→6→9



1. Remove the 1 flat cable(CN752).
2. Remove the 2 screws(❶, ❷).
3. Remove the power supply P.C.B. in the direction of arrow.

Ref.No. 10	Removal of the power transformer

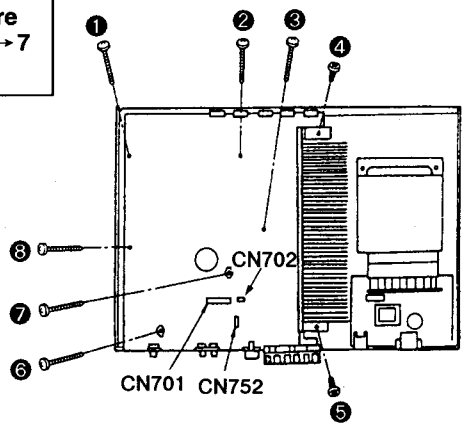
Procedure 1→6→8→9→10



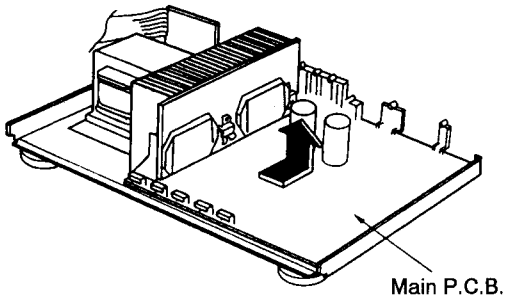
• Remove the 4 screws(❶~❹).

Ref.No. 11	Removal of the main P.C.B.

Procedure 1→2→6→7→11



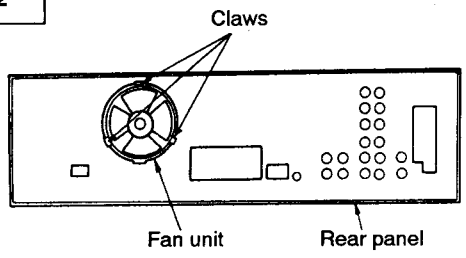
1. Remove the 3 flat cables(CN701, CN702, CN752).
2. Remove the 8 screws(❶~❽).



3. Remove the main P.C.B. in the direction of arrow.

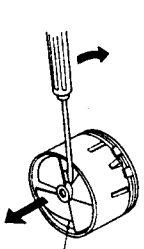
Ref.No. 12	Removal of the cooling fan motor

Procedure 1→6→12

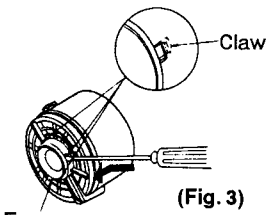


(Fig. 1)

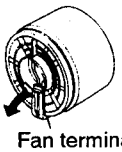
1. Release the 3 claws.(See **Fig. 1**)
2. Insert a screwdriver at the foot of the fan. Force it out of the motor shaft.(See **Fig. 2**)
3. Remove the fan cap by used ⊖ screwdriver. (See **Fig. 3**)
4. Remove the fan terminal cap in the direction of arrow. (See **Fig. 4**)
5. Remove the motor from the fan case. (See **Fig. 5**)
6. When mounting the motor, align the fan casing's projection with the hole of the motor.(See **Fig. 6**)



(Fig. 2)

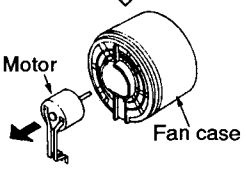


(Fig. 3)

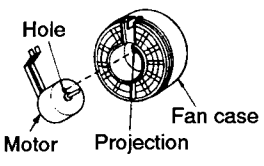


(Fig. 4)

Fan terminal cap



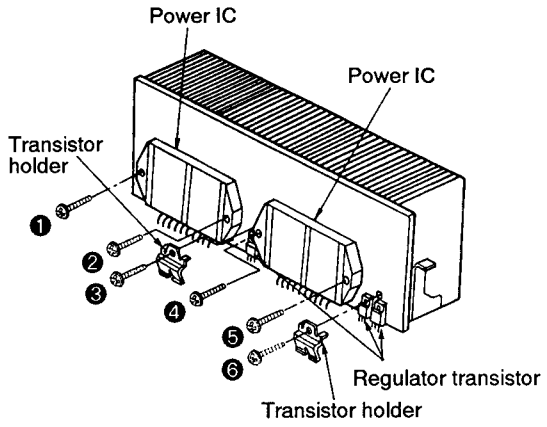
(Fig. 5)



(Fig. 6)

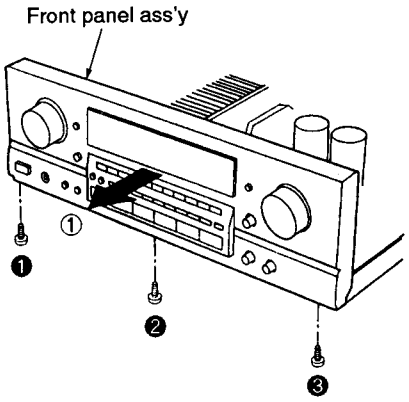
Ref.No. 13	Removal of the power IC and regulator transistor
Procedure 1→2→6→7 →11→13	

1. Unsolder the power IC or regulator transistor.
2. Remove the 6 screws(❶~❻).
3. Remove the 2 transistor holders.

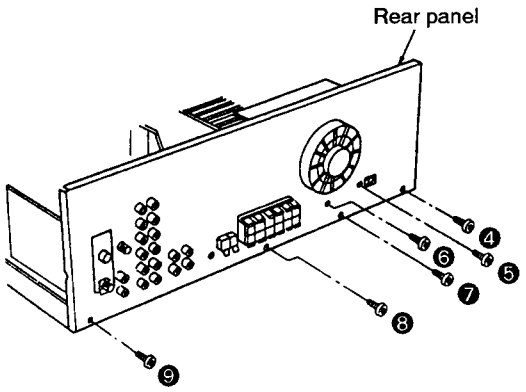


- **When mounting the power IC or regulator transistor.**
  Apply silicone compound(RFKX0002) to the rear side of power IC or regulator transistor.

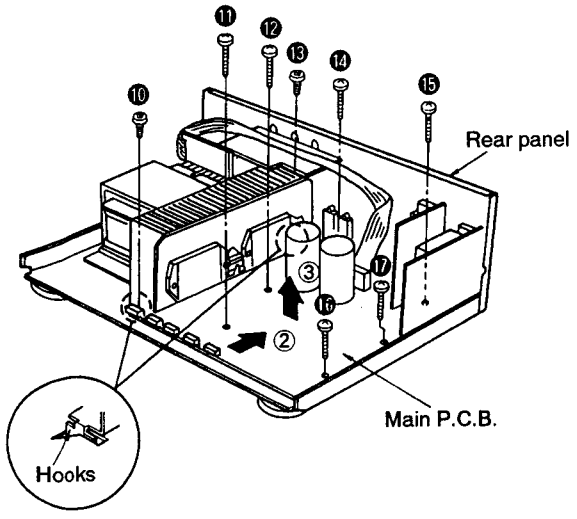
■ HOW TO CHECK THE MAIN P.C.B.



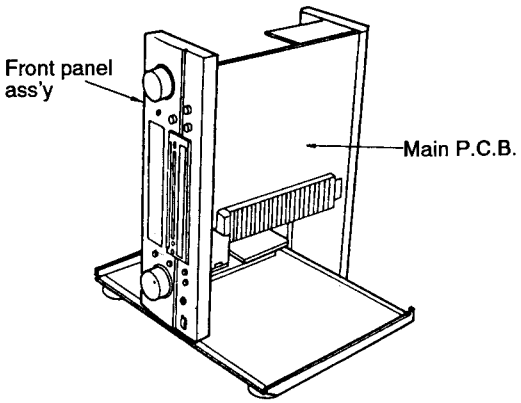
1. Remove the 3 screws(❶~❸).
2. Remove the front panel ass'y in the direction of arrow①.



3. Remove the 6 screws(❹~❾).

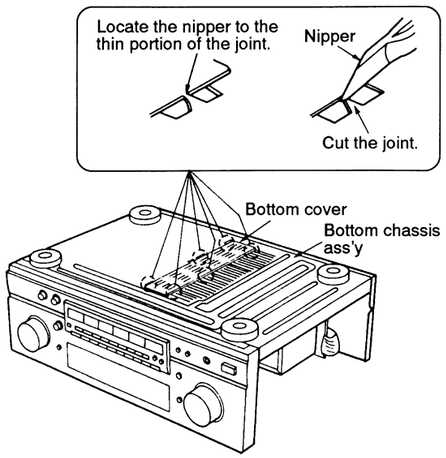


4. Remove the 8 screws(⓾~⓱).
5. Release the 2 hooks by sliding the main P.C.B. in the direction of arrow②, and then remove the main P.C.B. equipped with rear panel in the direction of arrow③.

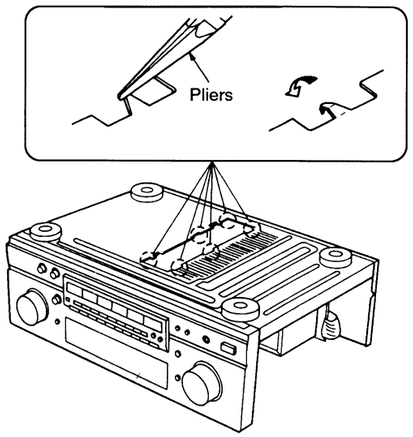


6. Reinstall the front panel ass'y to the main P.C.B.
7. When checking the soldered surface of the main P.C.B. and replacing the parts, do as shown in above.

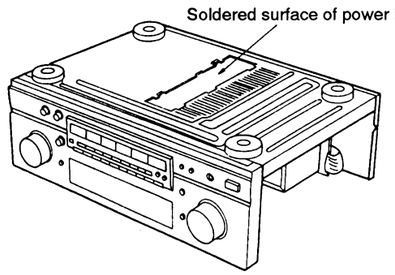
■ HOW TO REPLACEMENT THE POWER IC AND REGULATOR



1. Cut the joints(6 portions) between bottom cover and bottom chassis ass'y with nipper.

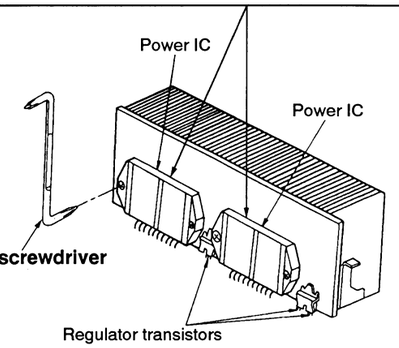


2. After cutting the joints(6 portions), bend the portions of the bottom chassis ass'y in the direction of arrow with pliers.

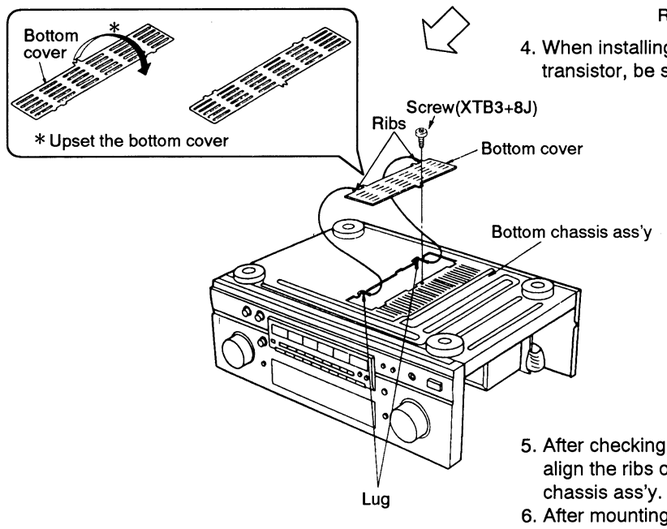


3. When checking the soldered surface of power IC, perform as shown above.

——— CAUTION ———
After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor. (Rediation of power IC & transistor)



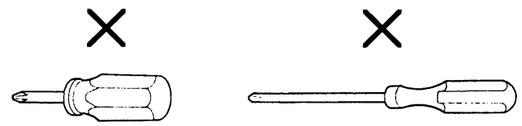
4. When installing or removing the power IC or regulator transistor, be sure to use an offset screwdriver.



5. After checking the power IC, upset the bottom cover and align the ribs of the bottom cover to the lugs on the bottom chassis ass'y.
6. After mounting the bottom cover on the bottom chassis ass'y, fix it with a screw(XTB3+8J).

CAUTION:

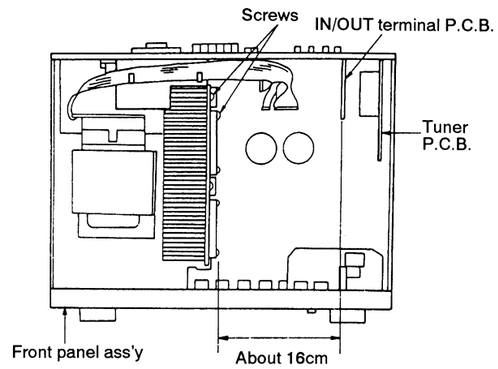
1. A long straight screwdriver cannot be used for removal or mounting since its long grip interferes with the neighboring P.C.B.(See Fig.1)
2. A short straight screwdriver may be used for removal, but cannot be used for mounting because the limited space in the unit will not allow sufficient tightening torque. (See Fig.2)



A short straight screwdriver — A long straight screwdriver

Fig.2

3. Insufficient tightening will cause poor heat dissipation from the power IC and regulator transistor and, in the worst case, may lead their thermal breakdown. (See Fig.2)

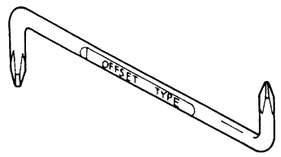


(A long straight screwdriver cannot be used.)

Fig.1

——OFFSET SCREWDRIVER——

- The PROTO offset screwdriver No.34-¼ is recommended for use in the application above.



No.	⊕	⟷ L ⟷
34¼	1 & 2	4¾″

- The address of PROTO International Sales is as follows.

PROTO®

Internatiotal Sales

International Sales Office
Stanley-Proto Industrial Tools
14117 Industrial Park Blvd.
Covington, GA 30209 U.S.A.
Fax: 706-786-4387
Phone: 706-787-3800

Australia, New Zealand & South Pacific
Stanley-Proto Industrial Tools
P.O.Box 10
400 Whitehorse Road
Nunrweding 3131
Victoria, Australia
Fax: 61-3-894-1173
Phone: 61-3-878-9244

Singapore, Indonesia, Philippines, Korea, Hong Kong, Malaysia, China.
Stanley-Proto Asia Pacific
12 Gul Drive
Singapore 2262
Fax: 65-861-3206
Phone: 65-862-0883

Thailand
Stanley-Proto Thailand Ltd.
1017 Moo 13 Bangnatrad
Highway, Tambol Bankaew
Amphur Bangplee
Samutprakarn, Thailand
Fax: 66-2-316-6071
Phone: 66-2-316-8655

Japan
Stanley Works Japan
2-7-16 Hyakunin-Cho
Shinjuku-ku
Tokyo 160 Japan
Fax: 81-3-3360-8456
Phone: 81-3-3360-8458

Mexico
Herramientas Stanley S.A. DE C.V.
Apartado Postal 675
72030 Puebla, Pue, Mexico
Fax: 52-22-494-4880
Phone: 52-22-495-300

South & Central America, Puerto Rico, The Caribbian
Stanley Inter-America
2101 N.W. 84th Ave.
Miami, Florida 33122
Fax: 305-594-4261
Phone: 305-591-3828

Europe
Stanley-Proto Europe
Woodside, Sheffield
539PD
England
Fax: 44-742-739-038
Phone: 44-742-768-888

Canada
Stanley-Proto Canada
1100 Corporate Drive
Burlington, Ontario
Canada, L7L 5R6
Fax: 416-335-0075
Phone: 416-335-0075

Middle East, Mediterranean & Africa
Stanley-MEMA
Cory House The Rlng
Bracknell Berkshire
RG 12 1A2
England
Fax: 44-344-485-526
Phone: 44-344-51813

■ FAN MO

The Models S
If the cooling
light (D929) is

(Voltage

		fan. c
Q651	E	0V
	C	-0. 6
	B	0V
Q652	E	0V
	C	-0.
	B	-0. 6
Q653	E	0V
	C	-14
	B	-0.

(Table

IN/OUT terminal P.C.B.

Tuner P.C.B.

16cm

g straight
driver cannot
ed.)

← L →

4¾″

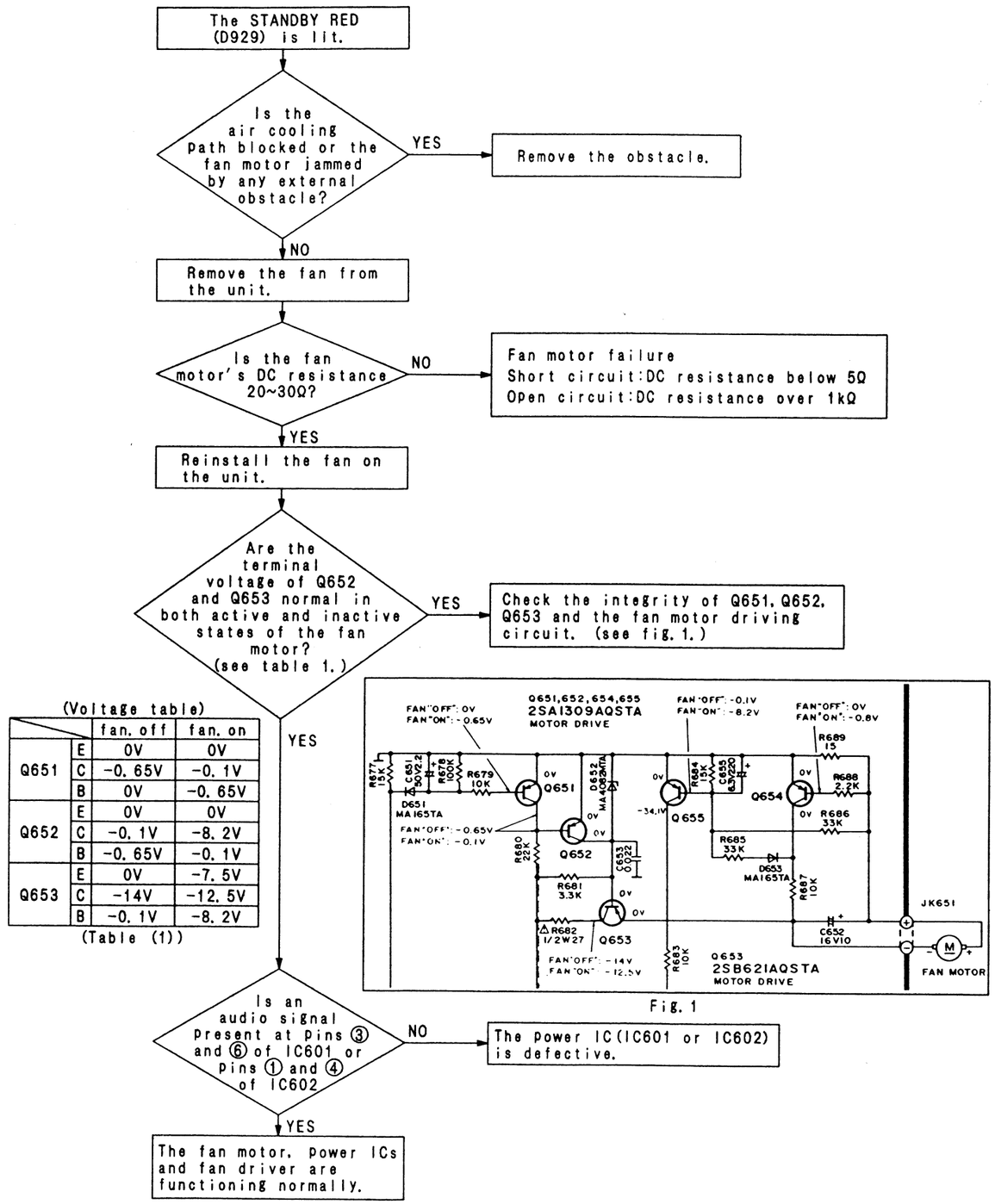
ope
nley-Proto Europe
odside, Sheffield
PD
land
: 44-742-739-038
ne: 44-742-768-888

nada
nley-Proto Canada
0 Corporate Drive
ington, Ontario
nada, L7L 5R6
: 416-335-0075
ne: 416-335-0075

dle East, Mediterranean
frica
nley-MEMA
y House The Rlng
cknell Berkshire
12 1A2
land
: 44-344-485-526
ne: 44-344-51813

■ FAN MOTOR TROUBLESHOOTING GUIDE

The Models SA-GX350/GX550/GX650 employ fan motor error sensing electronics.
If the cooling fan is not operation and its STANDBY light (D929) is on, check the fan motor and its STANDBY light (D929) is on, check the fan motor and its driving circuit.


The STANDBY RED (D929) is lit.
Is the air cooling path blocked or the fan motor jammed by any external obstacle?
YES
Remove the obstacle.
NO
Remove the fan from the unit.
Is the fan motor's DC resistance 20~30Ω?
NO
Fan motor failure
Short circuit:DC resistance below 5Ω
Open circuit:DC resistance over 1kΩ
YES
Reinstall the fan on the unit.
Are the terminal voltage of Q652 and Q653 normal in both active and inactive states of the fan motor? (see table 1.)
YES
Check the integrity of Q651, Q652, Q653 and the fan motor driving circuit. (see fig. 1.)
YES
Is an audio signal present at pins ③ and ⑥ of IC601 or pins ① and ④ of IC602
NO
The power IC (IC601 or IC602) is defective.
YES
The fan motor, power ICs and fan driver are functioning normally.

(Voltage table)

		fan. off	fan. on
Q651	E	0V	0V
	C	-0. 65V	-0. 1V
	B	0V	-0. 65V
Q652	E	0V	0V
	C	-0. 1V	-8. 2V
	B	-0. 65V	-0. 1V
Q653	E	0V	-7. 5V
	C	-14V	-12. 5V
	B	-0. 1V	-8. 2V

(Table (1))

Fig. 1

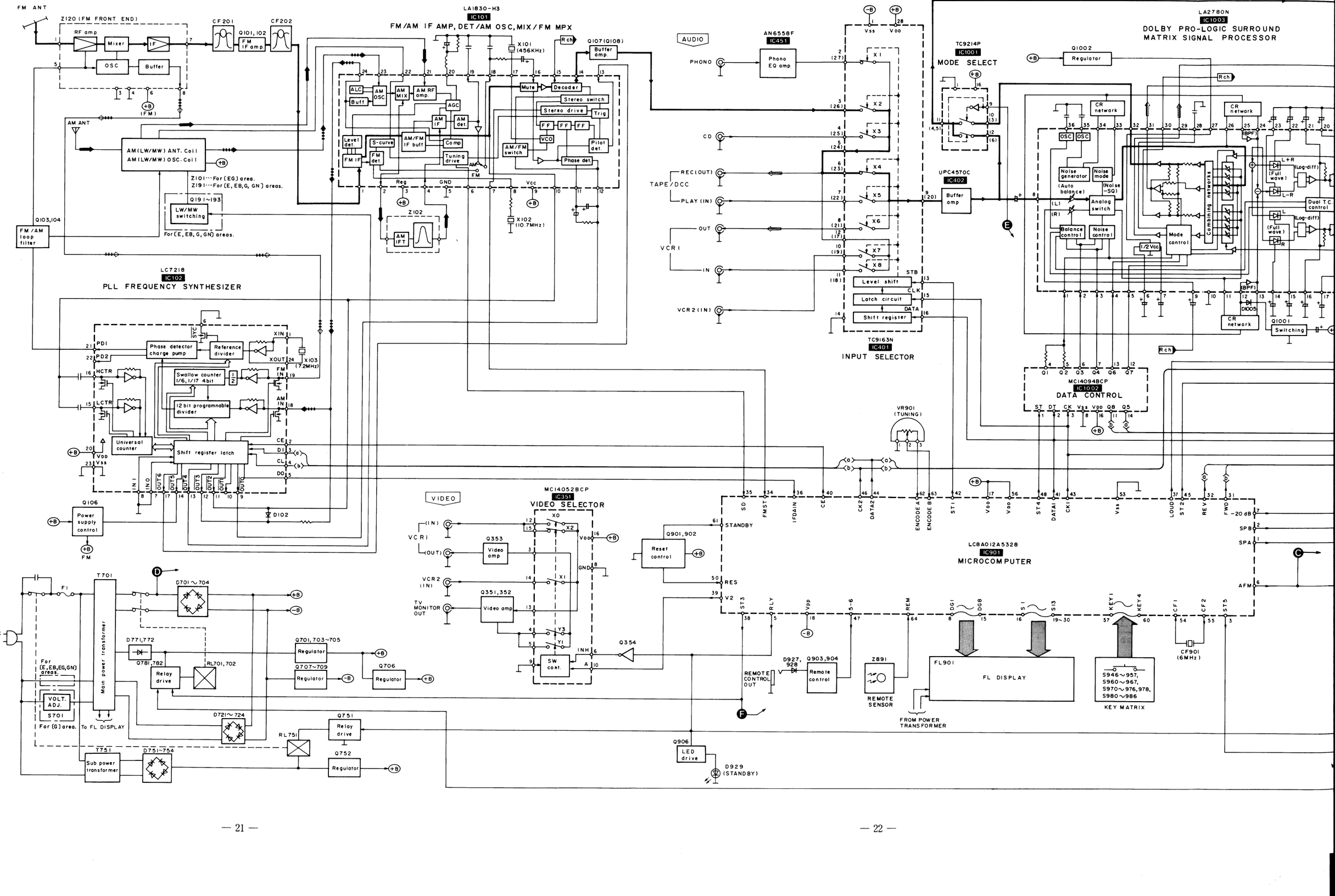
■ TERMINAL FUNCTION OF IC

• **IC901 (LC8A012A5328): Microcomputer**

Pin No.	Mark	I/O Division	Function
1 • 2	SPA • SPB	O	Speaker select control terminal
3	ST5	O	Level shift control terminal
4	RFM	—	Not used, open
5	RLY	O	Relay control terminal
6	AFM	O	Muting control terminal
7	−20dB	O	Muting control (−20dB) terminal
8 ∫ 15	DG1 ∫ DG8	O	Digit signal of FL display
16	S13	O	Segment signal of FL display
17	VDD	I	Power supply terminal
18	VPP	I	Power supply terminal of FL display
19 ∫ 30	S12 ∫ S1	O	Segment signal of FL display
31 • 32	FWD • REV	O	Rotation control terminal of volume motor
33	INI	—	Not used, connected to resistor
34	FMST	I	Stereo signal detect terminal
35	SD	I	Received signal detect terminal
36	IFDAIN	O	Serial data signal
37	LOUD	O	Not used, open
38	ST3	O	Level shift control terminal
39	V2	O	Video selector control terminal
40	CE	O	Chip enable terminal

Pin No.	Mark	I/O Division	Function
41	DATA1	O	Serial data signal
42	ST1	O	Level shift control terminal
43	CK1	O	Serial clock signal
44	DATA2	O	Serial data signal
45	ST2	O	Level shift control terminal
46	CK2	O	Serial clock Serial clock signal
47	5−6	O	Remote control terminal
48	ST4	O	Level shift control terminal
49	TEST1	—	Test terminal
50	RES	I	Reset detect terminal
51	XT1	—	Not used, connected to power supply
52	XT2	—	Not used, open
53	VSS	—	GND terminal
54	CF1	I	Crystal oscillator
55	CF2	O	Terminal (6MHz)
56	VDD	I	Power supply terminal
57 ∫ 60	KEY1 ∫ KEY4	I	Key matrix detect terminal
61	STANDBY	O	Power detect terminal
62 • 63	ENCODE A • ENCODE B	I	Not used, connected to power supply
64	REM	I	Remote control terminal

■ BLOCK DIAGRAM



LA2780N
IC1003
DOLBY PRO-LOGIC SURROUND
MATRIX SIGNAL PROCESSOR

VOLUME MOTOR
BA6218
IC851
MOTOR DRIVE
Drive
Direction select
VR501-1,2 (VOLUME)
VR502 (BALANCE)
Q502(Q501)
Q908
Loudness control

UPC4570C
IC471
Tone amp.
Treble
Bass
Q507,541,543 (Q542,544)
Limitter circuit
Q503 (Q504)
Muting switch
Q505 (Q506)
Muting switch

SV13206D
IC601
POWER AMP (FRONT)
NF
Output DC det.
Abnormal current det.
Muting circuit
D654
Q602
Relay drive
RL602
Q601
Relay drive
RL601
Q604
Over load det.

FAN MOTOR
Q651~655
Motor drive
FRONT SPEAKER
HEADPHONES
Q509 (Q510)
Muting switch
Q511(Q512)
Muting switch

LA2730
IC1401
DOLBY B NR
Noise reduction amp.
Control amp.
Rect.
Over shoot suppressor clipper
V/I Conv.
VREF
Input amp.
Buffer amp (X1)
Summing amp.
Output amp.
AN6554F
IC1404(1:4)
Buffer amp.

AN6554F
IC1404(1:4)
Buffer amp.

D933
D932
D934
Switching
Q907

M50198P
IC1405
DIGITAL DELAY
Self reset
8K SRAM
Main control logic
Delay time control
L.P.F.2
L.P.F.1
CF1401 (3MHz)

AN6554F
IC1404(1:4)
0 dB
-10 dB
-40 dB
CK2
DATA2
ST2
Shift register
Latch
Level shift
0 dB
-2 dB
-∞
0 dB
-10 dB
-70 dB
0 dB
-2 dB
-∞
Buffer amp.
Buffer amp.
Buffer amp.

TC9212P
IC1403
ATTENUATOR

M5218AP
IC551(1:2)
Pre amp.
VR501-4 (VOLUME)
Q552,554
Muting drive
M5218AP
IC551(1:2)
Pre amp.
VR501-3 (VOLUME)
Q551,553
Muting drive

SV13206D
IC602(1:2)
POWER AMP (REAR)
NF
Output DC det.
Abnormal current det.
Muting circuit
D655
Q603
Relay drive
RL603
REAR SPEAKERS

SV13206D
IC602(1:2)
POWER AMP(CENTER)
NF
CENTER SPEAKERS

KEY MATRIX
S946~957,
S960~967,
S970~976,978,
S980~986
CF901 (6MHz)

Notes:

- : FM OSC SIGNAL
- : AM (MW/LW) OSC SIGNAL
- : REC OUT SIGNAL (Lch)
- : REAR SPEAKER DRIVE SIGNAL (Lch)
- : AM (MW/LW) SIGNAL
- : FM/AF (FRONT SPEAKER DRIVE) SIGNAL (Lch)
- : CENTER OUT SIGNAL

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:
- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:
1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

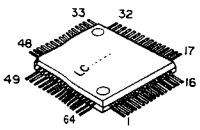
■ BEFORE REPAIR AND ADJUSTMENT

Disconnect AC power, Discharge both Power Supply Capacitors C703 and C704 through a 10Ω, 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdrive blade, for instance), as this may distroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230V/240V/110−127V/220−240V.

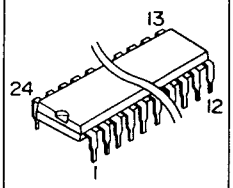
Power supply voltage	AC 230V		AC 240V		AC 120V (AC 110−127V)		AC 240V (AC 220−240V)	
Consumed current 50/60Hz	50Hz	200~500mA	50Hz	220~540mA	50Hz	400~1000mA	50Hz	200~500mA
	60Hz	160~400mA	60Hz	176~432mA	60Hz	320~800mA	60Hz	160~400mA

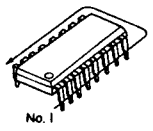
■ TERMINAL GUIDE OF IC'S TRANSISTORS AND DIODES

LC8A012A5328

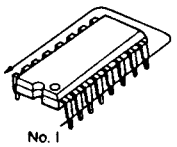


M50198P

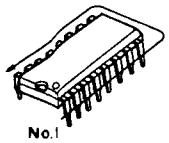




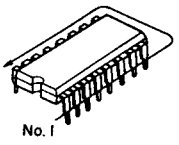
M5218AP	8 Pin
LA1830-H3	24 Pin
LC7218	24 Pin



AN6654F	14 Pin
LA2730	16 Pin

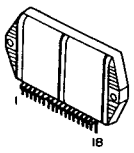


AN6558-FSG	8 Pin
UPC4570C	8 Pin
MC14052BCP	16 Pin
MC14094BCP	16 Pin
LA2780N	36 Pin

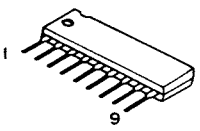


TC9214P	16 Pin
TC9212P	20 Pin
TC9163N	28 Pin

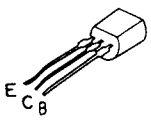
SVI3206D



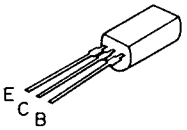
BA6218

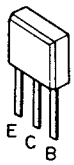


2SB621AQSTA
2SC2631QRSTA



2SC3940AQSTA

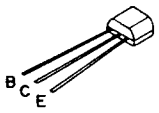




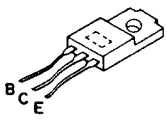
2SA1309AQSTA
2SC2785FETA
2SC2787LTA
2SC3311AQSTA
UN411FTA
UN4113TA
UN4211TA
UN4213TA
UN421FTA

UN4214TA

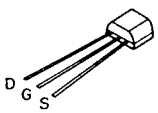
2SC3327ABTP



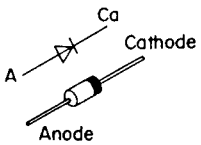
2SB1187DEF
2SD1761DEF



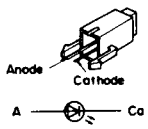
2SJ40CDTA

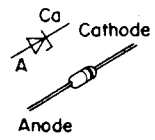


P300DLF

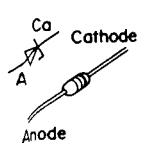


LN018304P

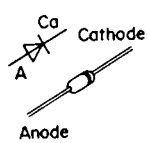




MA165TA
MA700ATA
1SS291TA
1SR35200TB



MA4030MTA
MA4039MTA
MA4047MTA
MA4051MTA
MA4056MTA
MA4062MTA
MA4068MTA
MA4075MTA



MA4150MTA
MA4220MTA
MA4240MTA

■ SCHEMATIC DIAGRAM (Parts list on pages 52~58.)

(This schematic diagram may be modified at any time with the development of new technology.)

Note 1:

- **S701** : Voltage adjustment switch in "220−240V" position.
- **S946** : Numeric (5) switch.
- **S947** : Center level adjust (CENTER LEVEL −) switch.
- **S948** : Test signal ON/OFF (TEST) switch.
- **S949** : Numeric (4) switch.
- **S950** : Numeric (6) switch.
- **S951** : Center level adjust (CENTER LEVEL +) switch.
- **S952** : Numeric (7) switch.
- **S953** : Rear level adjust (REAR LEVEL −) switch.
- **S954, 955** : Input select switches. [S954: CD, S955: TUNER]
- **S956** : Center mode select (CENTER MODE) switch.
- **S957** : Numeric (9) switch.
- **S960** : Rear level adjust (REAR LEVEL +) switch.
- **S961** : Numeric (8) switch.
- **S962** : Numeric (0) switch.
- **S963** : Delay time (DELAY TIME) adjustment.
- **S964** : Input select (PHONO) switch.
- **S965** : Loudness (LOUDNESS) ON/OFF switch.
- **S966** : Memory (MEMORY) switch.
- **S967** : Muting (MUTING) switch.
- **S970** : Tape/DCC monitor (TAPE/DCC MONITOR) switch.
- **S971** : Input select (VCR2) switch.
- **S972** : Input select (VCR1) switch.
- **S973** : Speaker select (B) switch.
- **S974** : FM mode select (FM MODE) switch.
- **S975** : Band select (BAND) switch.
- **S976** : Direct tuning (DIRECT TUNING) switch.
- **S978** : Power (POWER) switch.
- **S980** : Dolby pro logic 3 STEREO ON/OFF (3 STEREO) switch.
- **S981** : Speaker select (A) switch.
- **S982** : Dolby pro logic surround ON/OFF (SURROUND) switch.
- **S983** : Numeric (3) switch.
- **S984** : Numeric (2) switch.
- **S985** : Numeric (1) switch.
- **S986** : Tuning mode (TUNING MODE) switch.

- Signal line
  - : FM OSC signal
  - : AM (MW/LW) OSC signal
  - : Rec out signal (Lch)
  - : Rear speaker drive signal (Lch)
  - : Positive voltage lines
  - : Negative voltage lines
  - : FM signal
  - : AM (MW/LW) signal
  - : AF signal (Lch)
  - : Center speaker drive signal

- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used as occation calls. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- The supply parts number is described alone in the replacement parts.

Part No.	Original Part No.	Supply Part No.
Z891	RCDHC-278-E	RCDHC-278

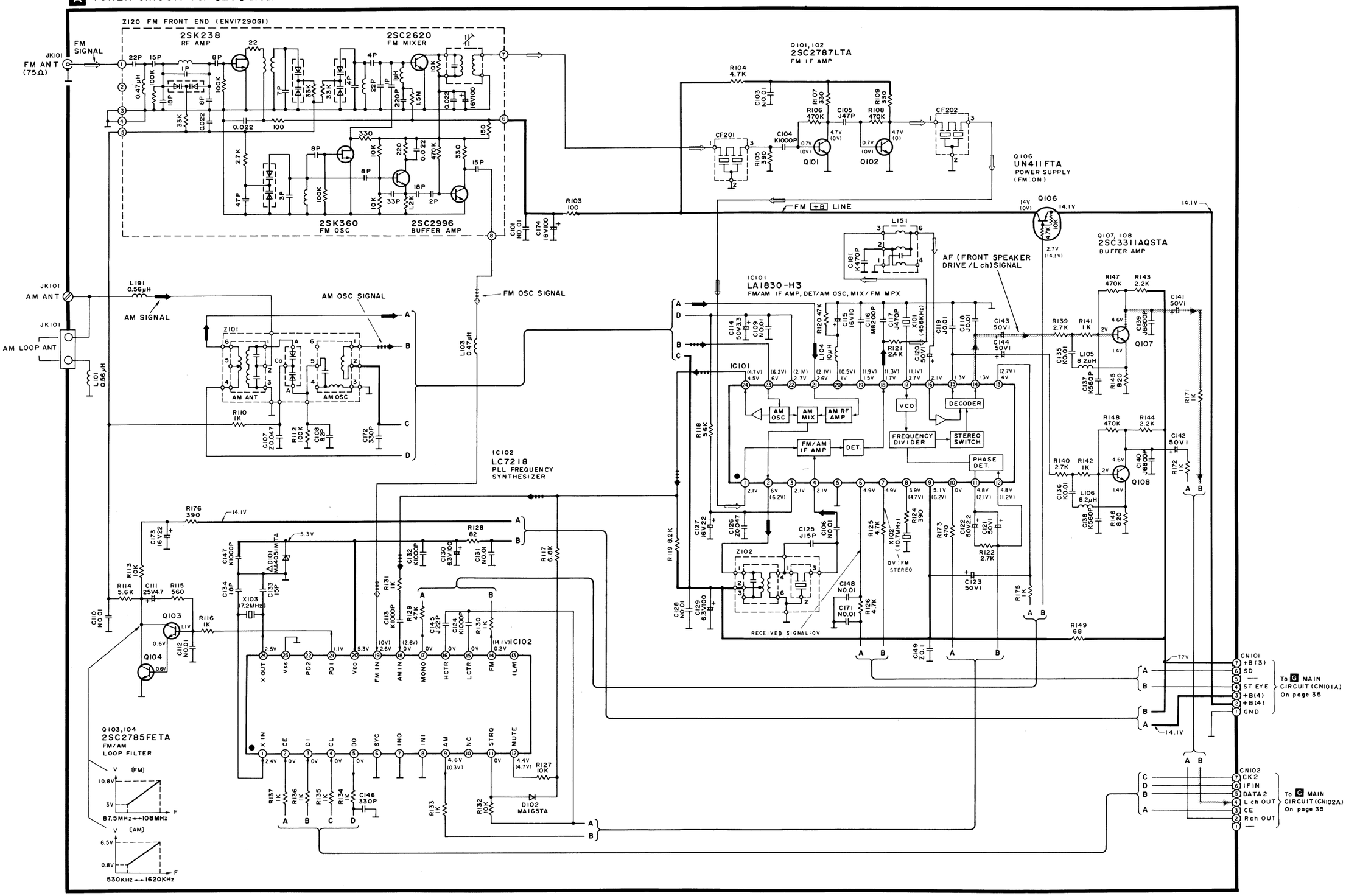
- All voltage values shown in circuitry are DC voltage in FM signal (Stereo signal) reception mode.

∗Figures in ( ) stand for DC-voltage in AM (MW/LW) signal reception mode.

∗Figures in [ ] stand for DC-voltage in LW signal reception mode.

- **Caution!**
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with alminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

A TUNER CIRCUIT For [EG] area.



A TUNER CIRCUIT For [E,EB,G,GN] areas.

Z120 FM FRONT END (ENV17290G1)

2SK238 RF AMP

2SC2620 FM MIXER

2SK360 FM OSC

2SC2996 BUFFER AMP

JK101 FM ANT (75Ω)

FM SIGNAL

Q101, 102 2SC2787LTA FM IF AMP

Q101

Q102

Q106 UN411FTA POWER SUPPLY (FM:ON)

FM +B LINE

L151

C181 K470P

IC101 LA1830-H3 FM/AM IF AMP, DET/AM OSC, MIX/FM MPX

AF (FRONT SPEAKER DRIVE/L ch) SIGNAL

Q107, 108 2SC3311AQSTA BUFFER AMP

Q107

Q108

JK101 AM ANT

AM (LW/MW) SIGNAL

AM LOOP ANT

L191 1μH

L101 1μH

Z191

MW ANT

LW ANT

MW OSC

LW OSC

AM (LW/MW) OSC SIGNAL

FM OSC SIGNAL

L103 0.47μH

Q191~193 2SC3311AQSTA LW/MW SWITCHING

Q191

Q192

Q193

IC102 LC7218 PLL FREQUENCY SYNTHESIZER

V [FM] 10.8V -3V F 87.5MHz ↔ 108MHz

Q103, 104 2SC2785FETA FM/AM (LW/MW) LOOP FILTER

V (LW) 5.4V 1V F 144KHz ↔ 288KHz

V (MW) 6.5V 0.8V F 530KHz ↔ 1620KHz

X103 (7.2MHz)

X102 (10.7MHz) 0V FM STEREO

Z102

RECEIVED SIGNAL-0V

D101 MA4051MTA

D102 MA165TA

CN101 +B(3) SD — ST EYE +B(4) +B(4) GND

To G MAIN CIRCUIT (CN101A) On page 35

CN102 CK2 IFIN DATA2 L ch OUT CE Rch OUT —

To G MAIN CIRCUIT (CN102A) On page 35

B OPERATION CIRCUIT

C POWER SWITCH CIRCUIT

on page 35 To G MAIN CIRCUIT (CN902A)
on page 35 To G MAIN CIRCUIT (CN903A)
on page 35 To G MAIN CIRCUIT (CN901A)
on page 36 To G MAIN CIRCUIT (CN904A)
on page 36 To G MAIN CIRCUIT (CN905A)

CN902 AC RELAY, ST5, SPB, SPA, +B(2), ST4, REMOTE CK2
CN903 ST2, DATA 2, CK1, ST1, DATA 1, CE, VIDEO, ST3
CN901 HP GND, HP Lch IN, HP Rch IN, AC, AC, -B(2), OVER LOAD, AF MUTE
CN913 CN913A
CN904 I.F DATA, SD, ST EYE, +B(1), C.IN, D.GND, C.OUT
CN905 Lch IN, Rch IN, A.GND, Rch OUT, Lch OUT, SOUT, +B(1), S.IN
CN502, CN501

FL901 (RSL0138-F) FL DISPLAY

Q543,544 2SC3311AQSTA LIMITTER
Q541,542 2SA1309AQSTA LIMITTER
Q541 Q543 Q542 Q544
Q503 Q505 Q504 Q506
Q503~506 2SC3327ABTP MUTING
Q507 2SA1309AQSTA LIMITTER
Q908 UN421ITA SWITCHING (LOUDNESS)
Q904 UN4214TA SWITCHING (REMOTE)
Q903 UN4113TA SWITCHING (REMOTE)
Q906 2SA1309AQSTA LED DRIVE
Q902 2SA1309AQSTA REGULATOR
Q901 UN4214TA SWITCHING(RESET)
Q907 UN4113TA SWITCHING

IC901 LC8A012A5328 MICROCOMPUTER
IC471 UPC4570C TONE AMP

D910 MA165TA, D907 MA165TA, D908 MA165TA, D906 MA165TA, D928 MA165TA, D927 MA165TA, D921 MA165TA, D929 LN0183O4P (STANDBY), D902 MA4039MTA, D901 IS2291TA, D923 MA165TA, D903 MA4056MTA, D904 MA4030MTA, D917 IS5291ITA, D933 MA165TA, D932 MA165TA, D934 MA165TA, D939 MA165TA, D925 MA165TA

Z901 (100K×4), Z891 RCDHC-278-E (REMOTE SENSOR), CF901 (6MHz), VR901 (TUNING)

S946 (5), S950 (6), S951 (CENTER LEVEL+), S952 (7), S953 (REAR LEVEL−), S954 (CD), S955 (TUNER), S956 (CENTER MODE), S957 (9)
S947 (CENTER LEVEL−), S960 (REAR LEVEL+), S961 (8), S962 (0), S963 (DELAY TIME), S964 (PHONO), S965 (LOUDNESS), S966 (MEMORY), S967 (MUTING)
S948 (TEST), S970 (TAPE/DCC MONITOR), S971 (VCR 2), S972 (VCR 1), S973 (SPEAKERS-B), S974 (FM MODE), S975 (BAND), S976 (DIRECT TUNING)
S949 (4), S980 (3 STEREO), S981 (SPEAKERS-A), S982 (SURROUND), S983 (3), S984 (2), S985 (1), S986 (TUNING MODE)
S978 (POWER)

(BALANCE) VR502 100K(G)

15 16 17 18 19 20 21 22 23 24 25

C POWER SWITCH CIRCUIT

R978 1.2K
S978 (POWER)
CN913
CN913A

on page 36 To G MAIN CIRCUIT (CN904A)

CN904 IF DATA, SD, ST EYE, +B(4), -B(1), C.IN, D.GND, C.OUT

on page 36 To G MAIN CIRCUIT (CN905A)

CN905 L.ch IN, R.ch IN, A.GND, R.ch OUT, L.ch OUT, S.OUT, +B(1), S.IN

Q543,544 2SC3311AQSTA LIMITTER
Q541,542 2SA1309AQSTA LIMITTER

Q541 Q542 Q543 Q544
Q507 2SA1309AQSTA LIMITTER
Q908 UN421ITA SWITCHING (LOUDNESS)
LOUDNESS "ON": 13.9V
0V: LOUDNESS "ON"

Q503~506 2SC3327ABTP MUTING
Q503 Q504 Q505 Q506

CN502 CN502A
CN501 CN501A

IC901 LC8A012A5328 MICROCOMPUTER
SI3 DG8 DG7 DG6 DG5 DG4 DG3 DG2 DG1 AFM RLY RFM ST5 SPB SPA

Z901 (100K×4)
Z891 RCDHC-278-E (REMOTE SENSOR)
Q907 UN4113TA SWITCHING
Q0907

S946 (5) S947 (CENTER LEVEL-) S948 (TEST) S949 (4)
S950 (6) S960 (REAR LEVEL+) S970 (TAPE/DCC MONITOR) S980 (3 STEREO)
S951 (CENTER LEVEL+) S961 (8) S971 (VCR 2) S981 (SPEAKERS-A)
S952 (7) S962 (0) S972 (VCR 1) S982 (SURROUND)
S953 (REAR LEVEL-) S963 (DELAY TIME) S973 (SPEAKERS-B) S983 (3)
S954 (CD) S964 (PHONO) S974 (FM MODE) S984 (2)
S955 (TUNER) S965 (LOUDNESS) S975 (BAND) S985 (1)
S956 (CENTER MODE) S966 (MEMORY) S976 (DIRECT TUNING) S986 (TUNING MODE)
S957 (9) S967 (MUTING)

IC471 UPC4570C TONE AMP

VR471-1(BASS) VR472-1(TREBLE) 100K(C)
VR471-2(BASS) VR472-2(TREBLE) 100K(C)
VR502 100K(G) (BALANCE)

D VOLUME CIRCUIT

IC551 M5218AP PRE AMP (CENTER/REAR)

VR501-4 VR501-3 VR501-2 VR501-1 100K(B) (VOLUME)

Q501,502 2SJ40CDTA SWITCHING (LOUDNESS)

IC851 BA6218 MOTOR DRIVE (VOLUME)
DIRECTION SELECT, DRIVE

L591 1μH, L592 1μH

Q509~512 2SC3327ABTP MUTING
Q509 Q511 Q512 Q510

D531,532 MA165TA
D533~536 MA4030MTA

CN601 CN601A
HP601 HEADPHONES

E HEADPHONES JACK CIRCUIT

SA-GX550 SA-GX550

F IN/OUT TERMINAL CIRCUIT

AUDIO

CD L ch / R ch — JK402 — R401 1K, R402 1K — C417 100P, C418 100P

TAPE/DCC PLAY (IN) L ch / R ch — JK402 — R405 1K, R406 1K — C419 330P, C420 330P

TAPE/DCC REC (OUT) L ch / R ch — JK403 — R407 1K, R408 1K — C421 330P, C422 330P

VCR2 (IN) L ch / R ch — JK403 — R409 1K, R410 1K — C423 100P, C424 100P

OUT L ch / R ch — JK404 — R411 1K, R412 1K — C425 100P, C426 100P

VCR1 IN L ch / R ch — JK404 — R413 1K, R414 1K — C427 220P, C428 220P

REC OUT SIGNAL (Lch)

IC401 TC9163N INPUT SELECTOR

IC402 UPC4570C BUFFER AMP

R423 1K, R426 10K, R425 10K, R427 10K, R424 1K

C401 35V4.7, C402 0.01, C403 0.01, C404 35V4.7, C405 100P

C409 16V22, C410 16V22, C411 100P, C412 100P

C413 16V10 (LI), C414 16V10 (RI), C415 0.1, C416 0.1

C431 16V10, C432 16V10

R415 1K, R416 1K, R417 47K, R418 47K, R419 100K, R420 100K, R421 100K, R422 100K

CN401, CN402

G MAIN CIRCUIT (PHONO EQ/VIDEO SELECTOR/DOLBY PRO LOGIC/CENTER, REAR VOLUME/POWER AMP/REGULATOR)

E401 GND

PHONO L ch / R ch — JK401 — R469 1K, R470 1K — C469 180P, C470 180P

IC451 AN6558-FSG PHONO EQ AMP

R451 220K, R452 220K, R453 390, R454 390, R455 56K, R456 56K, R457 10K, R458 270, R459 68, R460 68, R461 180K, R462 180K, R463 12K, R464 12K, R465 56K, R466 56K, R467 1K, R468 1K

C451 35V4.7, C452 35V4.7, C453 10P, C454 10P, C455 1000P, C456 1000P, C457 10V33, C458 10V33, C459 0.022, C460 0.022, C461 6800P, C462 6800P, C463 35V4.7, C464 35V4.7, C465 0.1, C466 0.1, C1040 0.1

CN401A, CN402A

IC351 MCI4052BCP VIDEO SELECTOR

D353 MA165TA, C353 6.3V47, R935 47K, R369 1/2W 220, R366 47K

SW CONT

VIDEO

Q352, 353 2SC3311AQSTA VIDEO AMP

Q351 2SAI309AQSTA VIDEO AMP

JK407 — IN / VCR1 OUT / VCR2 IN / TV MONITOR OUT

R351 47, R352 47, R359 47, R361 390, R362 47, R363 3.3K, R364 3.3K, R365 3.3K, R356 1K, R357 47, R358 390, R360 47, R354 4.7K, R355 47

Q353, Q352, Q351

D351 MA4056MTA, D352 MA4056MTA, C351 6.3V100, C352 6.3V100

JK406 REMOTE CONTROL OUT — C891 3900P

Q354 UN4211TA SWITCHING

R441 47K, R442 47K, R443 33, R440 1/2W 82, D401 MA4075MTA, C440 0.1

R932 1K, R933 1K, R934 1K, R944 1K, R943 1K, R942 1K, R941 1K, R940 1K, R939 1K, R938 1K, R937 1K, R936 1K

IC1001 TC9214P MODE SELECT

IC1003 LA2780N DOLBY PRO-LOGIC SURROUND MODE SIGNAL PROCESSOR

IC1002 MCI4094B DATA CONTROL

D1001 MA165TA, C1002 16V10, C1001 0.1, R991 10K

CN101A: GND, +B(4), +B(4), ST EYE, SD, +B(3)

CN102A: Rch IN, CE, Lch IN, DATA 2, IFIN, CK2

CN902A: AC RELAY, ST5, SPB, SPA, +B(2), ST4, REMOTE, CK2

CN903A: ST2, DATA2, CK1, ST1, DATA1, CE, VIDEO, ST3

CN901A: HP GND, HP Lch OUT, HP Rch OUT, AC, AC, -B(2), OVER LOAD, AF MUTE

To A TUNER CIRCUIT (CN101) on page 28,30

To A TUNER CIRCUIT (CN102) on page 28,30

To B OPERATION CIRCUIT (CN902) on page 31

To B OPERATION CIRCUIT (CN903) on page 31

To B OPERATION CIRCUIT (CN901) on page 31

5 6 7 8 9 10 11 12 13 14

G MAIN CIRCUIT (PHONO EQ/VIDEO SELECTOR/DOLBY PRO LOGIC/CENTER, REAR VOLUME/POWER AMP/REGULATOR)

IC451 AN6558-FSG PHONO EQ AMP

IC351 MCI4052BCP VIDEO SELECTOR

IC1001 TC9214P MODE SELECT

IC1003 LA2780N DOLBY PRO-LOGIC SURROUND MATRIX SIGNAL PROCESSOR

IC1002 MCI4094BCP DATA CONTROL

Q354 UN4211TA SWITCHING

Q1001 UN4213TA SWITCHING

Q1002 2SC3940AQSTA POWER SUPPLY

CENTER SPEAKER DRIVE SIGNAL

REAR SPEAKER DRIVE SIGNAL (L ch)

To A TUNER CIRCUIT (CN101) on page 28,30

To A TUNER CIRCUIT (CN102) on page 28,30

To B OPERATION CIRCUIT (CN902) on page 31

To B OPERATION CIRCUIT (CN903) on page 31

To B OPERATION CIRCUIT (CN901) on page 31

To B OPERATION CIRCUIT (CN904) on page 32

To B OPERATION CIRCUIT (CN905) on page 32

IC1401
LA2730
DOLBY B NR

IC1405
M50198P
DIGITAL DELAY

IC1403
TC9212P
ATTENUATOR

IC1404
AN6554F
BUFFER AMP

Q551,552
2SC3327ABTP
MUTING DRIVE

Q553,554
2SAI309AQSTA
MUTING DRIVE

IC1601
SVI3206D
POWER AMP (FRONT)

Q601,602
2SAI309AQSTA
RELAY DRIVE

Q603
2SAI309AQSTA
RELAY DRIVE

Q604
2SC3311AQSTA
OVER LOAD DET.

Q706
2SC3940AQSTA
REGULATOR

Q701
2SD1761DEF
REGULATOR

IC1602
SVI3206D
POWER AMP (CENTER/REAR)

Q781
2SC3940AQSTA
REGULATOR

Q707,709
2SB1187DEF
REGULATOR

Q708
2SC2631QRSTA
REGULATOR

Q703~705
2SC3311AQSTA
REGULATOR

Q782
2SC3311AQSTA
RELAY DRIVE

24 25 26 27 28 29 30 31 32 33

JK601 SPEAKERS FRONT A Lch Rch B Lch Rch JK602 E601 JK603 REAR Lch Rch JK604 CENTER Rch

C621 0.022 C622 0.022 C623 0.022 C624 0.022 C701 0.1

(L6) (R6) (S5) (C5)

R611 △ 1W150 C611 0.047 R665 1W150 R671 22K R672 22K R673 22K R674 22K R675 22K R676 22K C625 0.1 C626 0.1 C627 0.1

39.3V -38.2V -39.2V -22.7V 0V

D703 D704 C702 0.1 D701 D702

△R642 1/2W10 C642 0.047

D742 MA165TA D743 MA165TA RL701 RL702

782

CN701A CN701B CN701C CN752B CN752A CN702 W702

R623 10K

△R732 1/2W2.2

L751 100μH C758 10V100

3311AQSTA
Y DRIVE

H POWER SUPPLY CIRCUIT

FAN MOTOR "OFF" :0V
FAN MOTOR "ON" :-0.65V

Q651,652,654,655
2SA1309AQSTA
MOTOR DRIVE

FAN MOTOR "OFF" :-0.1V
FAN MOTOR "ON" :-8.2V

FAN MOTOR "OFF" :0V
FAN MOTOR "ON" :-0.8V

R677 6.8K C651 50V2.2 R678 100K R679 10K D651 MA165TA Q651 D652 MA4068MTA R684 15K C655 6.3V220 Q654 R689 22 R688 2.2K Q655 R686 33K R685 33K D653 MA165TA R687 10K Q652 R680 22K C653 0.022 R681 3.3K △R682 1/2W39 Q653 JK651 C652 16V10 M651 FAN MOTOR

FAN MOTOR "OFF" :-0.65V
FAN MOTOR "ON" :-0.1V

FAN MOTOR "OFF" :-14.2V
FAN MOTOR "ON" :-12.6V

-33.7V 0V -14.8V

Q752
2SC3940AQSTA
REGULATOR

Q653
2SB621AQSTA
MOTOR DRIVE

W752 A B C D E F

△Q752 6V 10.8V 6.7V 5.1V

△D756 MA4068MTA C756 0.01 R754 1K C753 25V1000 C757 16V47 D755 MA165TA △RL751 △D753 ISR35200TB △D754 ISR35200TB △D752 ISR35200TB △D751 ISR35200TB C752 0.01 AC 11.2V △T751 △C751 0.01 C754 0.01

Q751 4.7K 10K
Q751
UN421FTA
RELAY DRIVE

D721 ~ 724
P300DLF

△D724 △D723 C722 0.1 △D722 △D721

W701 A B C D E F G H I J K L

CN753 CN754 CN755 CN756 CN757 CN758 CN759 CN760 CN761

AC 41.6V AC 49.8V AC 44.3V AC 39.4V AC 19.7V AC 54.9V AC 4.3V

△T701 CN751 230V 240V

D771 D772 D771,772 ISR35200TB

△C771 35V330 △C772 35V330

△FI T2A △L701 JK791 AC IN

(230-240V---(E,EB,GN)
230V------(EG)
50/60Hz)

For (E, EB, GN) areas.
For (EG) area.

I POWER TRANSFORMER CIRCUIT

Power Source Circuit For (G) area.

H POWER SUPPLY CIRCUIT

Q651,652,654,655
2SA1309AQSTA
MOTOR DRIVE

R677 6.8K C651 50V2.2 R678 100K R679 10K D651 MA165TA Q651 D652 MA4068MTA R684 15K C655 6.3V220 Q655 R689 22 Q654 R688 2.2K R686 33K R685 33K D653 MA165TA R687 10K Q652 R680 22K C653 0.022 R681 3.3K △R682 1/2W39 Q653 JK651 C652 16V10 M651 FAN MOTOR

Q653
2SB621AQSTA
MOTOR DRIVE

W752

Q752
2SC3940AQSTA
REGULATOR

△Q752 △D756 MA4068MTA C756 0.01 R754 1K C753 25V1000 C757 16V47 D755 MA165TA △RL751 △D753 ISR35200TB △D754 ISR35200TB △D752 ISR35200TB △D751 ISR35200TB △T751 C752 0.01 C754 0.01

Q751 4.7K 10K
Q751
UN421FTA
SWITCHING

△C751 0.01

W701 W702

CN753 CN754 CN755 CN756 CN757 CN758 CN759 CN760 CN761

△T701

D771 D772 D771,772 ISR35200TB

△C771 35V330 △C772 35V330

△D724 △D723 C722 0.1 △D722 △D721

D721 ~ 724
P300DLF

△FI T4A △F2 T2A

W7 W6 W8 W3 W4 W5 W1 W2 CN751

△JK791 AC IN

(110-127V/220-240V
50/60Hz)

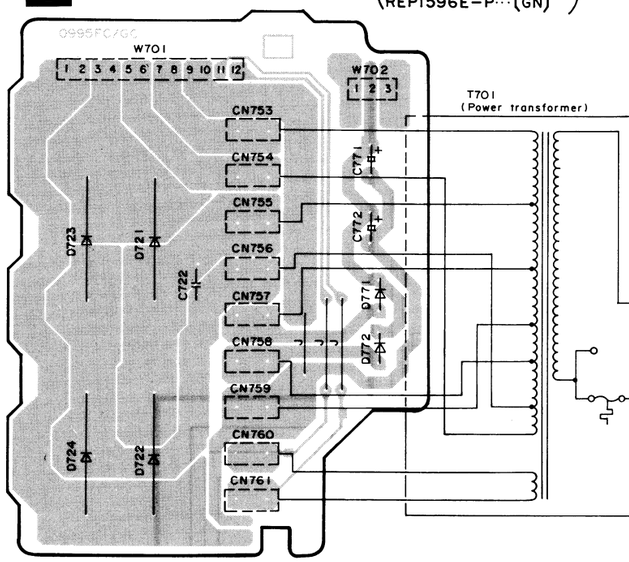
110-127V ⟷ 220-240V
△S701 (VOLT ADJ.)

J AC IN CIRCUIT

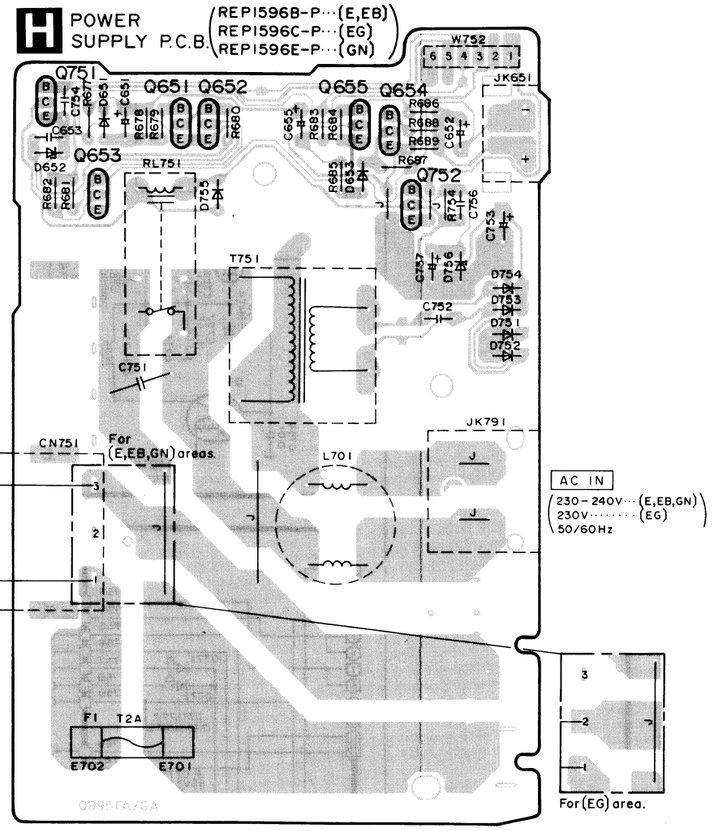
I POWER TRANSFORMER CIRCUIT

■ PRINTED CIRCUIT BOARDS

I POWER TRANSFORMER P.C.B. (REPI596B-P···(E,EB) / REPI596C-P···(EG) / REPI596E-P···(GN))



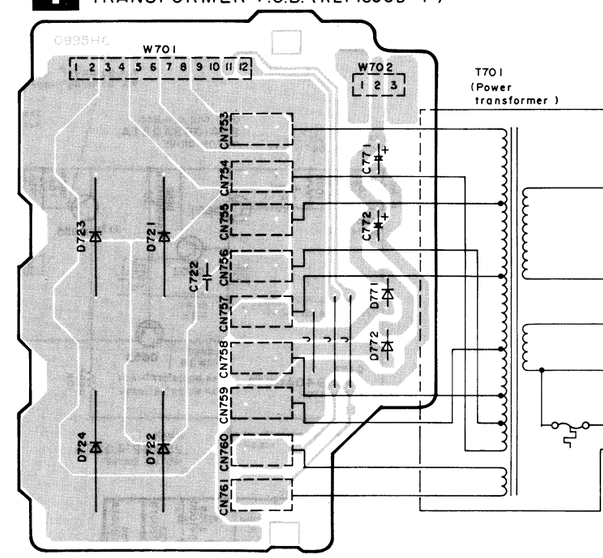
H POWER SUPPLY P.C.B. (REPI596B-P···(E,EB) / REPI596C-P···(EG) / REPI596E-P···(GN))

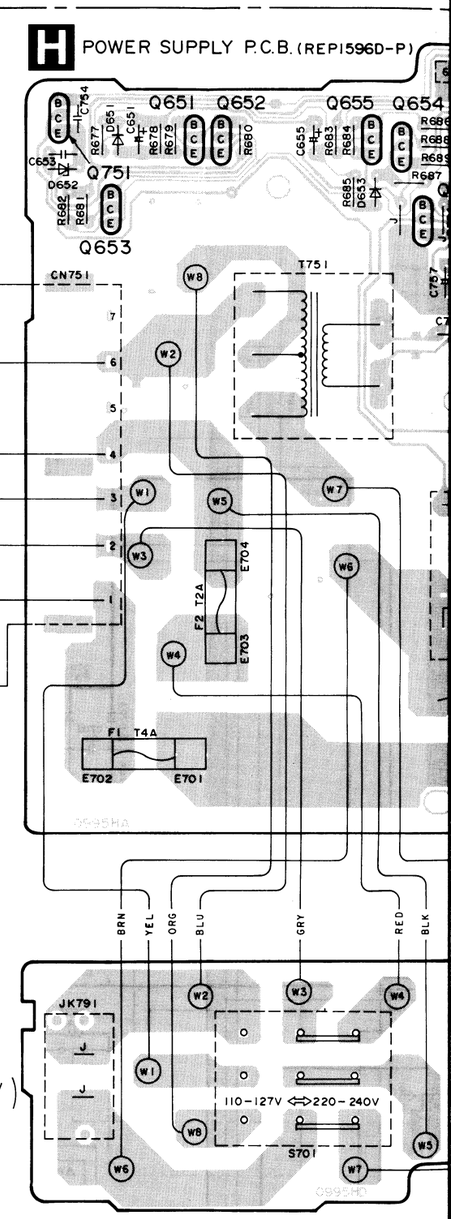


Power Source P.C.B. For (G) area.

H POWER SUPPLY P.C.B. (REPI596D-P)

I POWER TRANSFORMER P.C.B. (REPI596D-P)





J AC IN P.C.B. (REPI596D-P)

10 11 12 13 14 15 16 17 18 19

OWER SUPPLY P.C.B. (REPI596D-P)

Q651 Q652 Q655 Q654 Q752 W752 JK651

I751 W8 W2 W1 W5 W7 W3 W6 W4 W8 W6 W5 W7

D754 D753 D751 D752 D755 C752 C751 RL751

F2 T2A E704 E703 F1 T4A E702 E701

BRN YEL ORG BLU GRY RED BLK WHT

110-127V ⇔ 220-240V S701

VOLT ADJ

C IN P.C.B. (REPI596D-P)

G MAIN P.C.B. (REPI594B-M)

JK601 (Lch) (Rch) JK602 (Lch) (Rch) JK603 (Lch) (Rch) JK604 JK406 JK407 JK401

(A) (FRONT) (B) SPEAKERS (REAR) (CENTER)

REMOTE CONTROL OUT

TV MONITOR OUT VCR1 (OUT) VCR2 (IN) VCR1 (IN) VIDEO

AUDIO PHONO GND

RL602 RL601 RL701 RL702 RL603 RL751

Q709 Q707 Q708 Q701 Q703 Q705 Q704 Q706 Q603 Q604 Q552 Q551 Q602 Q601 Q554 Q553 Q352 Q353 Q354 Q351 Q781 Q782 Q1001 Q1002

IC601 IC602 IC351 IC451 IC1003 IC1002 IC1001 IC1404 IC1405 IC1401 IC1403

CN752A CN752B CN702 CN701A CN701B CN701C CN901A CN902A CN903A CN904A CN905A CN401A CN402A CN101A CN102A

E601 E401

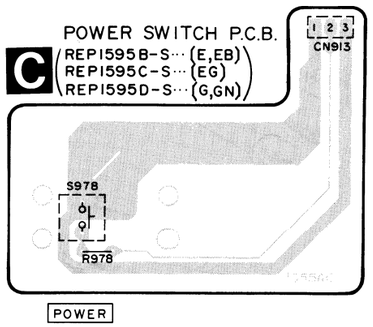
L601 L602 L631 L632 L751

D704 D702 D703 D701 D655 D552 D551 D602 D603 D401 D783 D784 D785

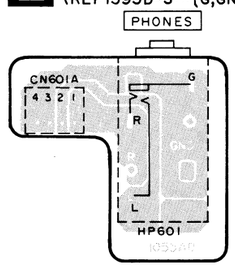
C704 C703 C702

IC1404 (DOLBY TEST POINT)

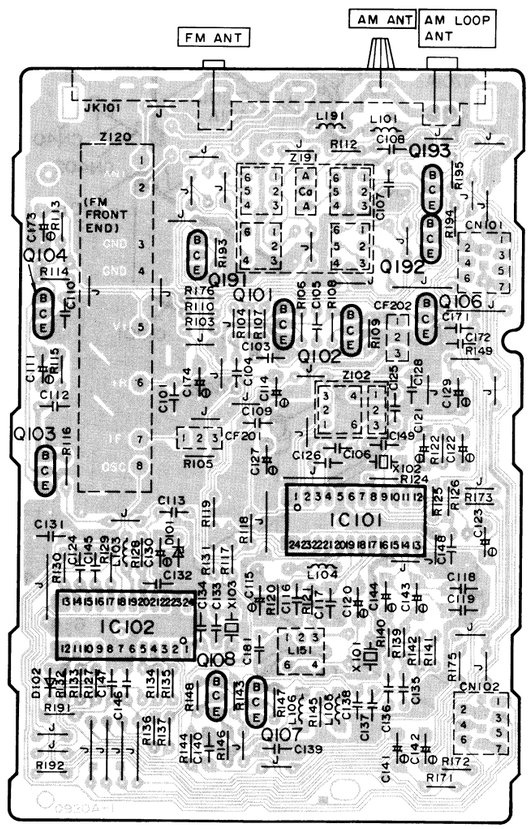
C POWER SWITCH P.C.B. (REPI595B-S···(E,EB) REPI595C-S···(EG) REPI595D-S···(G,GN))



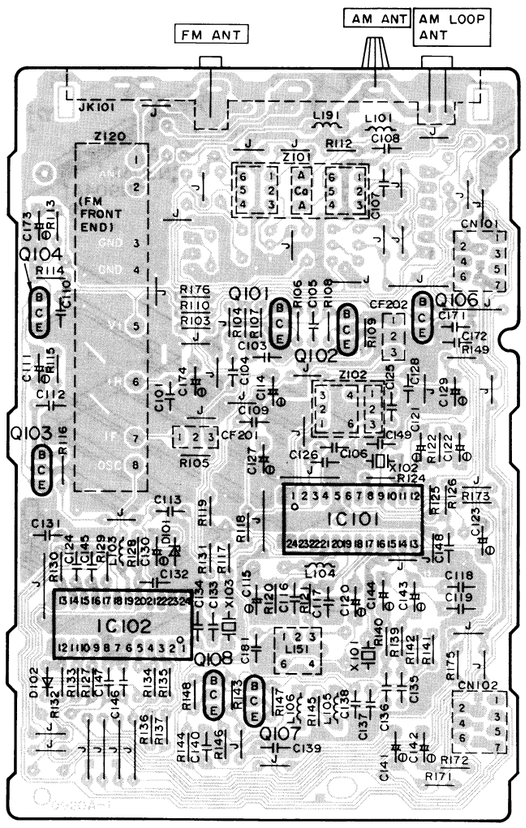
E HEADPHONES JACK P.C.B. (REPI595B-S···(E,EB) REPI595C-S···(EG) REPI595D-S···(G,GN))



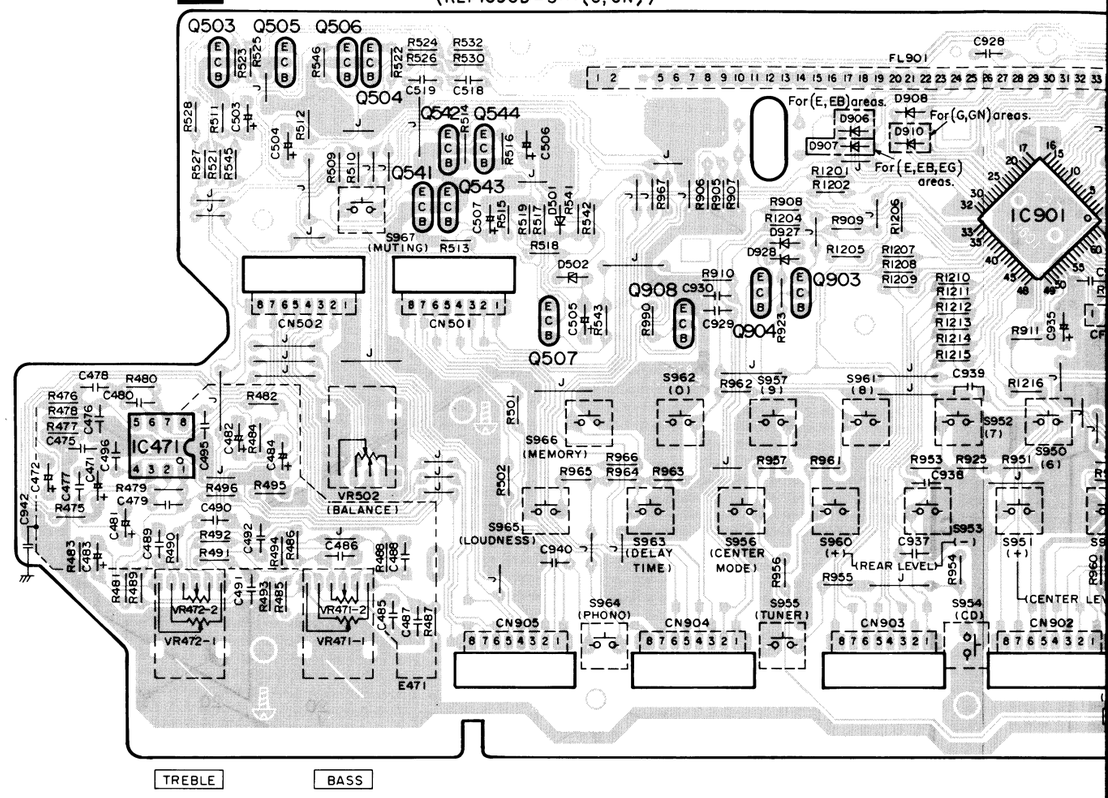
A TUNER P.C.B. For (E,EB,G,GN) areas. (REPI452H-T)



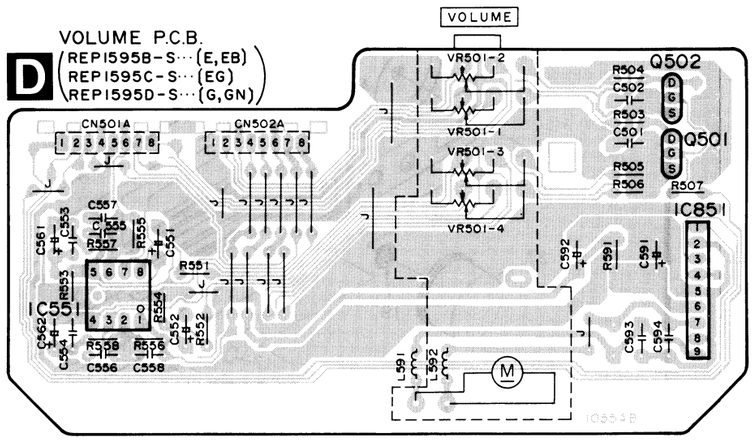
A TUNER P.C.B. For (EG) area. (REPI452G-T)



B OPERATION P.C.B. (REPI595B-S···(E,EB) REPI595C-S···(EG) REPI595D-S···(G,GN))



D VOLUME P.C.B. (REPI595B-S···(E,EB) REPI595C-S···(EG) REPI595D-S···(G,GN))

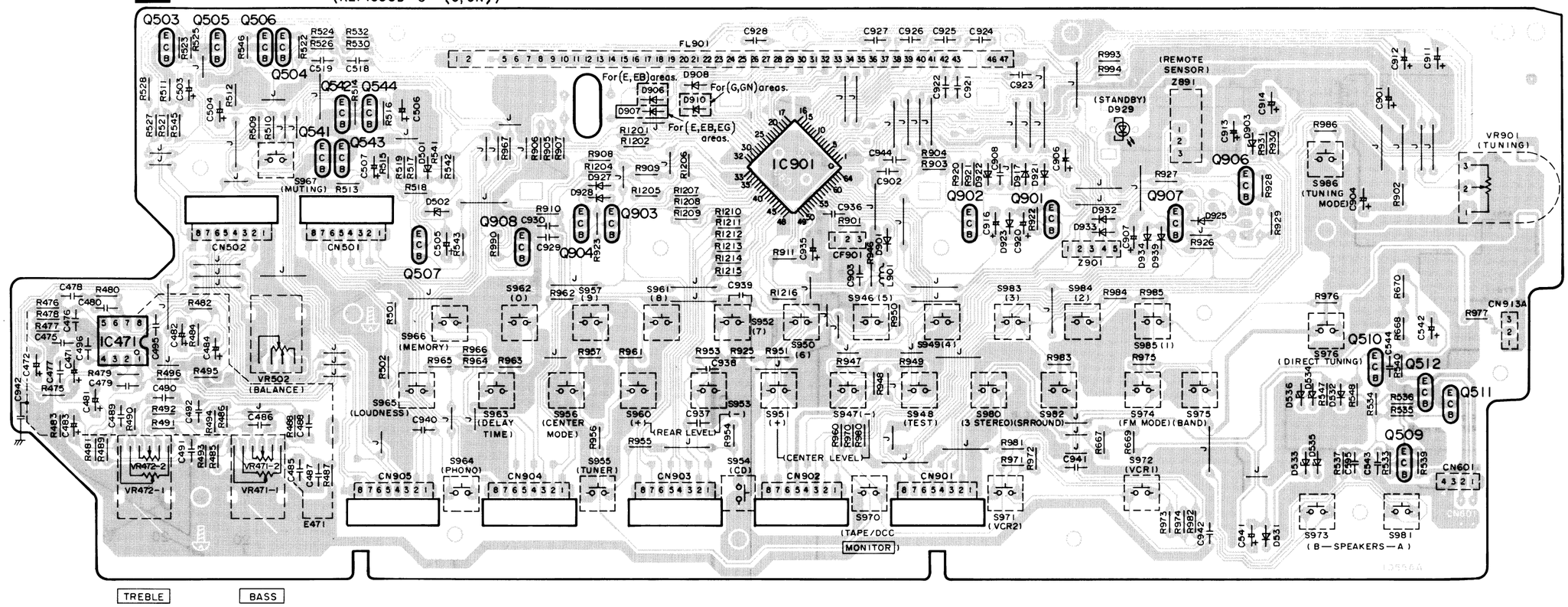


24 25 26 27 28 29 30 31 32 33 34

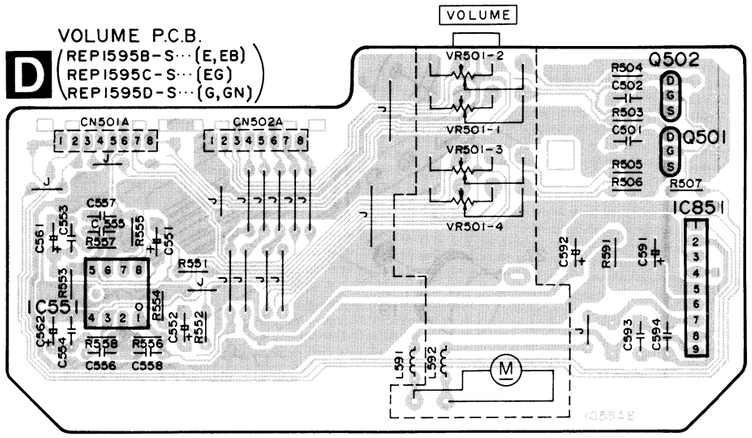
E,EB)
EG)
G,GN)

area.

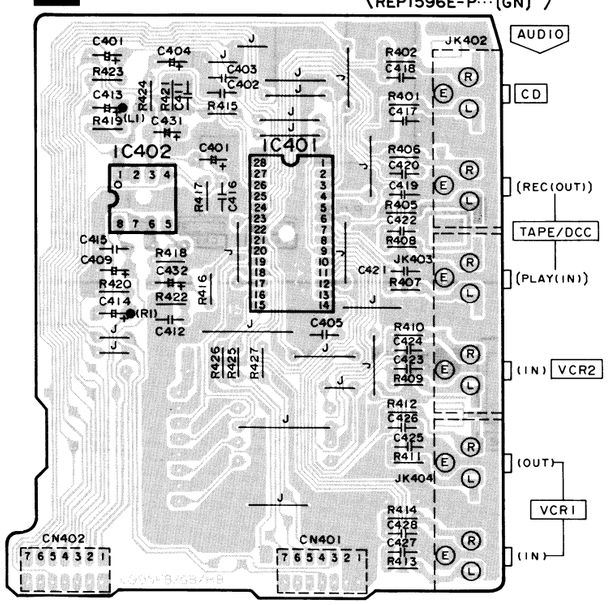
B OPERATION P.C.B. (REPI595B-S···(E,EB) REPI595C-S···(EG) REPI595D-S···(G,GN))



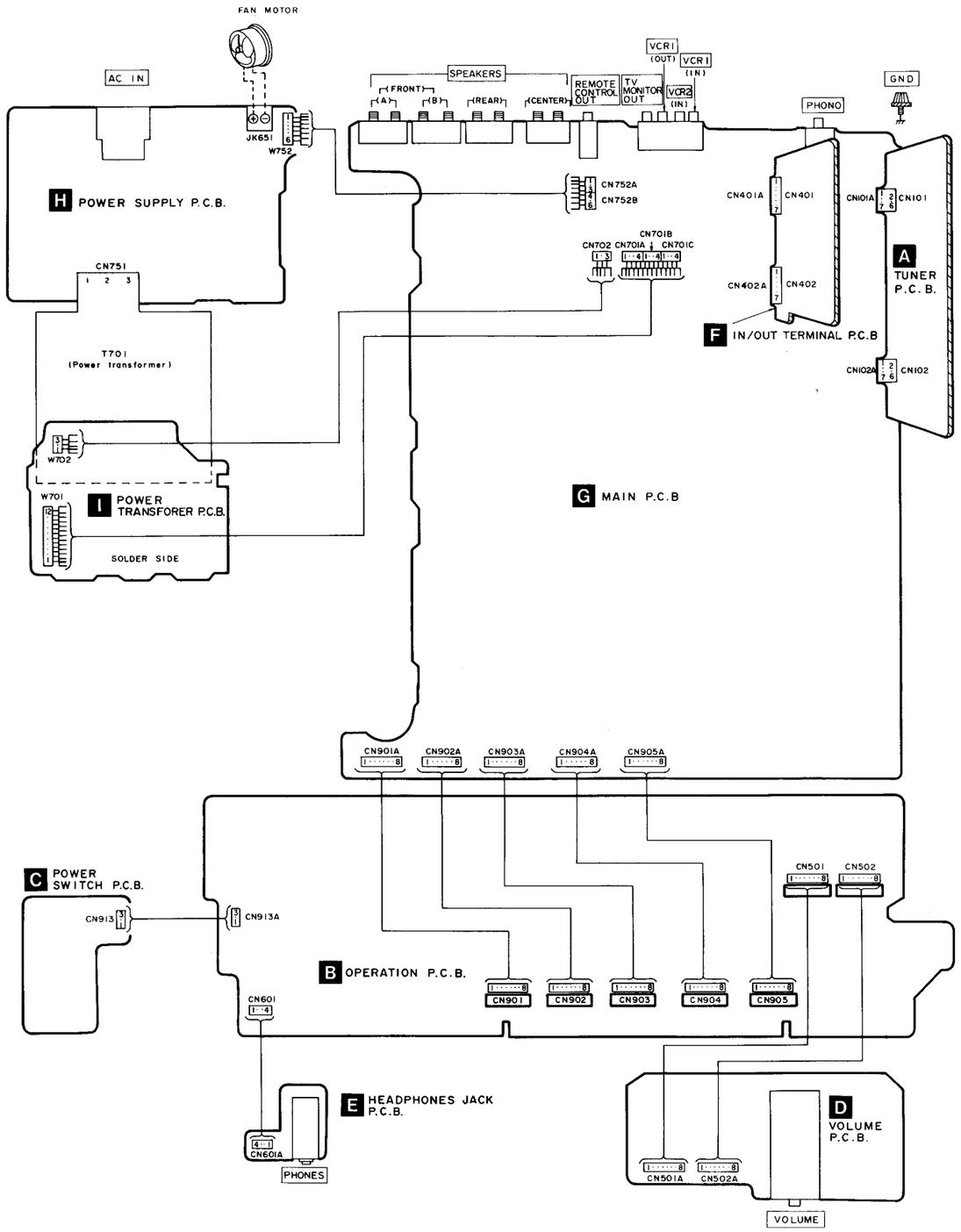
D VOLUME P.C.B. (REPI595B-S···(E,EB) REPI595C-S···(EG) REPI595D-S···(G,GN))



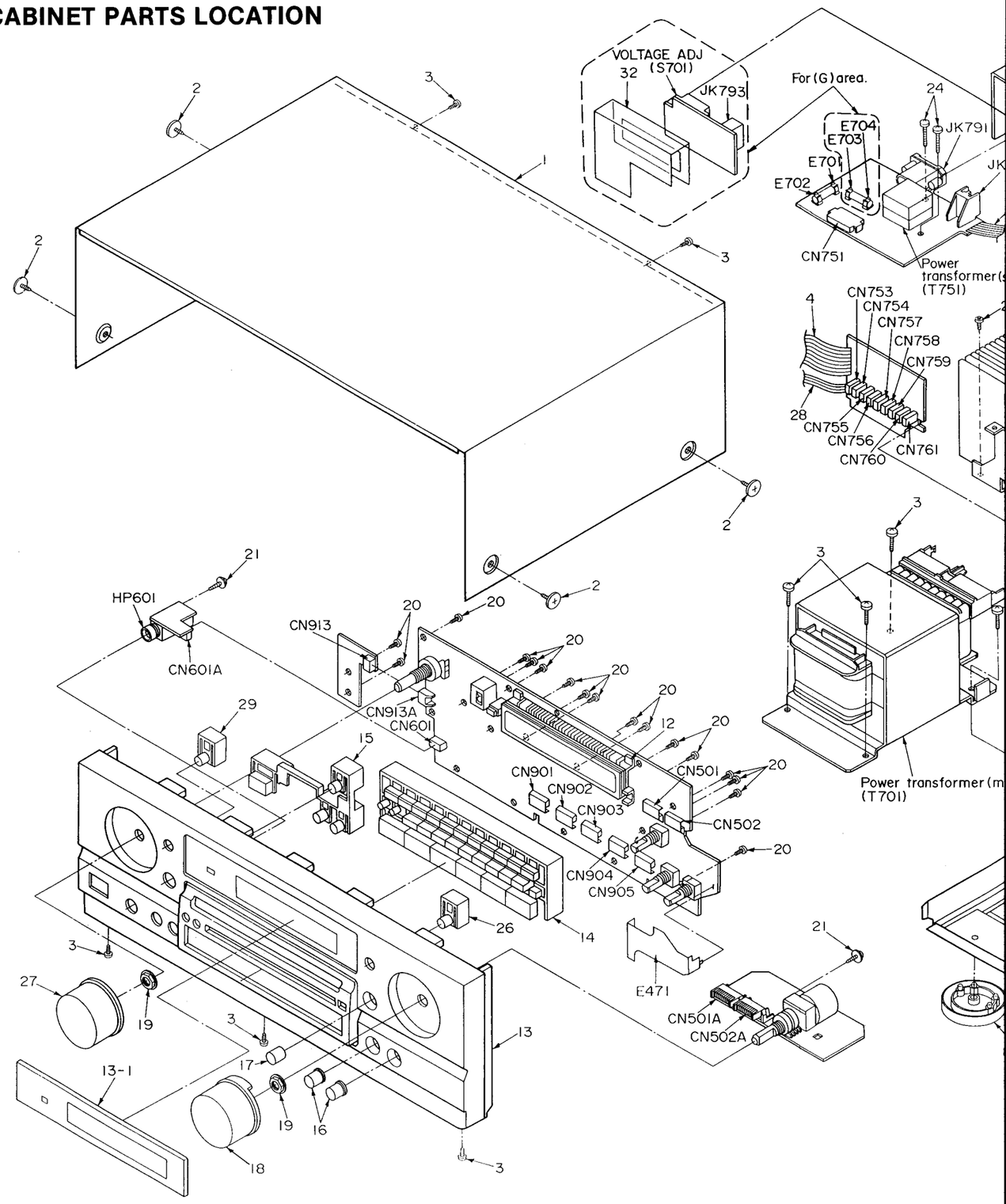
F IN/OUT TERMINAL P.C.B. (REPI596B-P···(E,EB) REPI596C-P···(EG) REPI596D-P···(G) REPI596E-P···(GN))



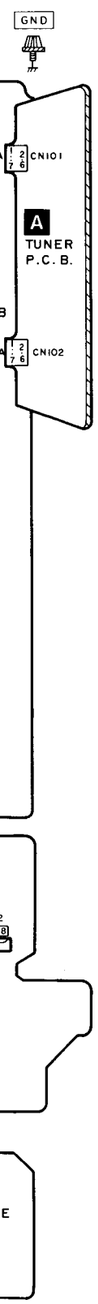
■ WIRING CONNECTION DIAGRAM

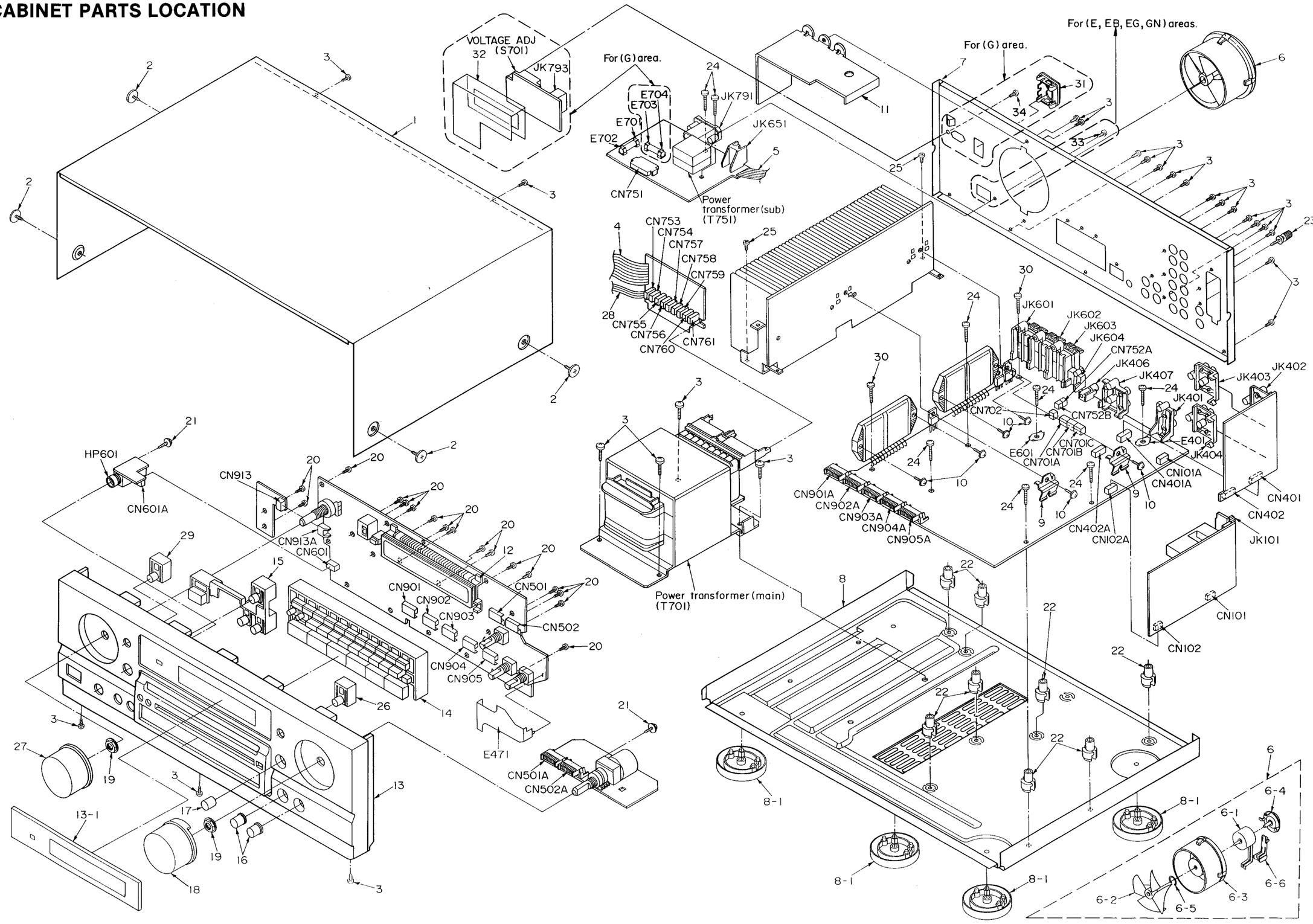


■ CABINET PARTS LOCATION



■ CABINET PARTS LOCATION





■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*The "SF" mark denotes the standard part.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RKM0041A-K	CABINET	
2	SNE2129-3	SCREW	
3	XTBS3+8JFZ1	SCREW	
4	RWJ1812440QK	FLAT CABLE (W701) (12P)	
5	RWJ1806300QK	FLAT CABLE (W752) (6P)	
6	REM0020-1	FAN UNIT	
6-1	MDN-4RB4MRC	MOTOR	
6-2	SHE232-1	FAN	
6-3	RMQ0209-K	FAN CASE	
6-4	RMQ0208-K	FAN CAP	
6-5	SUS271	SPRING	
6-6	RMQ0212-K	FAN TERMINAL CAP	
7	RGR0168C-B	REAR PANEL	(EB, GN)
7	RGR0168C-C	REAR PANEL	(EG)
7	RGR0168D-A	REAR PANEL	(G)
7	RGR0168C-A	REAR PANEL	(E)
8	RFKJAGX350PK	BOTTOM CHASSIS ASS'Y	
8-1	RKA0053-A	FOOT	
9	RMC0158	TRANSISTOR HOLDER	
10	XTW3+15T	SCREW	
11	RMA0692	WIND CAVE	
12	RMN0205	FL HOLDER	
13	RFKGAGX550EK	FRONT PANEL ASS'Y	
13-1	RKW0268A-Q	TRANSPARENT PLATE	
14	RGU0837B-K	SELECTOR BUTTON	
15	RFKNAGX550PA	MODE BUTTON ASS'Y	
16	RGW0012-K1	BASS/TREBLE KNOB	
17	RGW0020	BALANCE KNOB	
18	RGW0163-K	VOLUME KNOB	
19	RHN90001	NUT	
20	XTBS26+8J	SCREW	
21	XTWS3+10T	SCREW	
22	SHE187-2	P.C.B SUPPORT	
23	SNE2123	GND TERMINAL	
24	XTB3+20JFZ	SCREW	
25	XTB3+8JFZ	SCREW	
26	RFKNAGX350PB	MUTING BUTTON ASS'Y	
27	RGW0171-K	TUNING KNOB	
28	RWJ1803440QK	FLAT CABLE (W702) (3P)	
29	RFKNAGX550PB	TUNING MODE ASS'Y	
30	XTWS3+8T	SCREW	
31	SJS9231B	AC INLET COVER	(G)
32	RMZ0243	BARRIER	(G)
33	XTBS3+8JFZ1	SCREW	(E, EB, EG, GN)

Ref. No.	Part No.	Part Name & Description	Remarks
34	XTBS3+8JFZ1	SCREW	(G)
		PACKING MATERIAL	
P1	RPG1670	PACKING CASE	(E, G, GN)
P1	RPG1671-1	PACKING CASE	(EB)
P1	RPG1672	PACKING CASE	(EG)
P2	RPN0682	CUSHION	
P3	RPQ0164	PAD (ACCESSORIES)	(EB, EG, G, GN)
P4	RPH0032	MIRROR SHEET	(EB, GN)
P5	XZB60X65A01Z	PROTECTION BAG (UNIT)	
		ACCESSORIES	
A1	RFKSAGX550E	INSTRUCTION MANUAL ASS'Y	(E)
A1	RFKSAGX550EB	INSTRUCTION MANUAL ASS'Y	(EB)
A1	RFKSAGX550EG	INSTRUCTION MANUAL ASS'Y	(EG)
A1	RFKSAGX550G	INSTRUCTION MANUAL ASS'Y	(G)
A1	RFKSAGX550GN	INSTRUCTION MANUAL ASS'Y	(GN)
A2	RJA0019-2K	AC POWER SUPPLY CORD	(E, EG, G) ⚠ (SF)
A2	VJA0733	AC POWER SUPPLY CORD	(EB) ⚠ (SF)
A2	RJA0036-K	AC POWER SUPPLY CORD	(GN) ⚠ (SF)
A3	RSA0007	FM INDOOR ANTENNA	
A4	SPB1163T	AM LOOP ANTENNA SET	
A4-1	SMA233-1M	AM ANTENNA HOLDER	
A4-2	XTN3+10AFZ	SCREW	
A5	RQCB0169	SERVICENTER LIST	
A6	RQA0013	WARRANTY CARD	(E, EB, EG)
A6	RQX7433ZA	WARRANTY CARD	(GN)
A7	RAK-SA704XH	REMOTE CONTROL TRANSMITTER	(E, EB, EG)
A7	RAK-SA903XH	REMOTE CONTROL TRANSMITTER	(G, GN)
A7-1	RKK0020-K	BATTERY COVER	
A8	RQCA0259	R.C. CAUTION LABEL	(G, GN)
A9	SJP9009	ATTACHMENT PLUG	(EB) ⚠
A10	RFE0014	ANTTENA PLUG	(G, GN)
A11	RQLA0134	VOLTAGE CAUTION LABEL	(G)
A12	SJP5213-2	POWER PLUG ADAPTOR	(G) ⚠
A13	SQX40022	AM STEREO CAUTION LABEL	(GN)

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC101	LA1830-H3	FM/AM IF AMP./AM OSC	
IC102	LC7218	PLL FREQ. SYNTHESIZER	
IC351	MC14052BCP	VIDEO SELECTOR	
IC401	TC9163N	INPUT SELECTOR	
IC402	UPC4570C	BEFFER AMP	
IC451	AN6558-FSG	PHONO EQ AMP	
IC471	UPC4570C	TONE AMP	
IC551	M5218AP	PRE AMP	
IC601, 602	SVI3206D	POWER AMP	⚠
IC851	BA6218	VOLUME MOTOR DRIVE	
IC901	LC8A012A5328	MICROCOMPUTER	
IC1001	TC9214P	MODE SELECT	
IC1002	MC14094BCP	DATA CONTROL	
IC1003	LA2780N	DOLBY PRO-LOGIC	
IC1401	LA2730	DOLBY B NR	
IC1403	TC9212P	ATTENUATOR	
IC1404	AN6554F	BUFFER AMP	
IC1405	M50198P	DIGITAL DELAY	
		TRANSISTOR(S)	
Q101, 102	2SC2787L	TRANSISTOR	
Q103, 104	2SC2785FE	TRANSISTOR	
Q106	UN411FTA	TRANSISTOR	
Q107, 108	2SC3311A-Q	TRANSISTOR	
Q191-193	2SC3311A-Q	TRANSISTOR	(E, EB, G, GN)
Q351	2SA1309A-R	TRANSISTOR	
Q352, 353	2SC3311A-Q	TRANSISTOR	
Q354	UN4211	TRANSISTOR	
Q501, 502	2SJ40CDTA	TRANSISTOR	
Q503-506	2SC3327-A	TRANSISTOR	
Q507	2SA1309A-R	TRANSISTOR	
Q509-512	2SC3327-A	TRANSISTOR	
Q541, 542	2SA1309A-R	TRANSISTOR	
Q543, 544	2SC3311A-Q	TRANSISTOR	
Q551, 552	2SC3327-A	TRANSISTOR	
Q553, 554	2SA1309A-R	TRANSISTOR	
Q601-603	2SA1309A-R	TRANSISTOR	
Q604	2SC3311A-Q	TRANSISTOR	
Q651, 652	2SA1309A-R	TRANSISTOR	
Q653	2SB621AQSTA	TRANSISTOR	
Q654, 655	2SA1309A-R	TRANSISTOR	
Q701	2SD1761DEF	TRANSISTOR	⚠
Q703-705	2SC3311A-Q	TRANSISTOR	⚠
Q706	2SC3940AQSTA	TRANSISTOR	⚠
Q707	2SB1187DEF	TRANSISTOR	⚠
Q708	2SC2631QRSTA	TRANSISTOR	⚠
Q709	2SB1187DEF	TRANSISTOR	⚠
Q751	UN421FTA	TRANSISTOR	
Q752	2SC3940AQSTA	TRANSISTOR	⚠
Q781	2SC3940AQSTA	TRANSISTOR	⚠
Q782	2SC3311A-Q	TRANSISTOR	
Q901	UN4214TA	TRANSISTOR	
Q902	2SA1309A-R	TRANSISTOR	⚠
Q903	UN4113TA	TRANSISTOR	
Q904	UN4214TA	TRANSISTOR	
Q906	2SA1309A-R	TRANSISTOR	
Q907	UN4113TA	TRANSISTOR	
Q908	UN4211	TRANSISTOR	
Q1001	UN4213	TRANSISTOR	
Q1002	2SC3940AQSTA	TRANSISTOR	
		DIODE(S)	
D101	MA4051MTA	DIODE	⚠
D102	MA165	DIODE	
D351, 352	MA4056MTA	DIODE	⚠
D353	MA165	DIODE	
D401	MA4075MTA	DIODE	⚠
D501, 502	MA4030MTA	DIODE	
D531, 532	MA165	DIODE	
D533-536	MA4030MTA	DIODE	
D551, 552	MA165	DIODE	
D601, 602	MA165	DIODE	
D603	MA700	DIODE	
D604	MA165	DIODE	
D606	MA4047MTA	DIODE	
D651	MA165	DIODE	
D652	MA4068M	DIODE	
D653-655	MA165	DIODE	
D701-704	P300DLF	DIODE	⚠
D705, 706	MA165	DIODE	
D707, 708	MA4062MTA	DIODE	⚠
D710	MA4220MTA	DIODE	⚠
D712	MA4150M	DIODE	⚠
D721-724	P300DLF	DIODE	⚠
D751-754	1SR35200TB	DIODE	⚠
D755	MA165	DIODE	
D756	MA4068M	DIODE	⚠
D771, 772	1SR35200TB	DIODE	⚠
D781	MA4240H	DIODE	⚠
D782-785	MA165	DIODE	
D901	1SS291TA	DIODE	
D903	MA4056MTA	DIODE	⚠
D906	MA165	DIODE	(E, EB)
D907	MA165	DIODE	(E, EB, EG)
D908	MA165	DIODE	
D910	MA165	DIODE	(G, GN)
D917	1SS291TA	DIODE	
D921	MA165	DIODE	
D922	MA4039MTA	DIODE	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
D923	MA165	DIODE	
D925	MA165	DIODE	
D927, 928	MA165	DIODE	
D929	LN018304P	L. E. D.	
D932-934	MA165	DIODE	
D939	MA165	DIODE	
D1001	MA165	DIODE	
D1004, 1005	MA165	DIODE	
		VARIABLE RESISTOR(S)	
VR471, 472	EVJYA1FA5C15	BASS/TREBLE	
VR501	EUWMK3002B15	VOLUME CONTROL	
VR502	EVJ02QF02G15	BALANCE CONTROL	
VR901	EVQWP0F2024B	TUNING CONTROL	
		COMPONENT COMBINATION(S)	
Z101	RLA2Z002M-T	COMPONENT COMBINATION	(EG)
Z102	RLI2Z006M-T	COMPONENT COMBINATION	
Z120	ENV17290G1	FM FRONT END	
Z191	RLA6Z005M-T	COMPONENT COMBINATION	(E, EB, G, GN)
Z891	RCDHC-278	REMOTE SENSOR	
Z901	EXBF5E104J	COMPONENT COMBINATION	
		COIL(S)	
L101	ELESN1R0MA	COIL	(E, EB, G, GN)
L101	ELESNR56MA	COIL	(EG)
L103	ELEXTR47MA9	COIL	
L104	ELEXT100KA9	COIL	
L105, 106	RLQZB822KT-D	COIL	
L151	SLM1B10M-1M	COIL	
L191	ELESN1R0MA	COIL	(E, EB, G, GN)
L191	ELESNR56MA	COIL	(EG)
L591, 592	RLQZP1R0KT-Y	COIL	
L601, 602	SLQY07G-40	COIL	
L631, 632	SLQY07G-40	COIL	
L701	SLQZ650MH49	COIL	(E, EB, EG, GN) ⚠
L751	ELEPK101KA	COIL	
L901	RLQZP101KT-Y	COIL	
L1401	ELEPK101KA	COIL	
		TRANSFORMER(S)	
T701	RTP1Q5E009-V	POWER TRANSFORMER(MAIN)	(E, EB, EG, GN) ⚠
T701	RTP1Q5E010-V	POWER TRANSFORMER(MAIN)	(G) ⚠
T751	RTP115E003-V	POWER TRANSFORMER(SUB)	(E, EB, EG, GN) ⚠
T751	RTP115E005-V	POWER TRANSFORMER(SUB)	(G) ⚠
		FILTER(S) AND OSCILLATOR	

Ref. No.	Part No.	Part Name & Description	Remarks
CF201	RLFFETNGD01L	FILTER	
CF202	RLFFETMGD01L	FILTER	
CF901	EF0EC6004T4	OSCILLATOR(6MHz)	
CF1401	EF0GC3004T4	OSCILLATOR(3MHz)	
X101	RSXZ456KM07M	OSCILLATOR(456KHz)	
X102	RLFDFTD03M2	OSCILLATOR(10. 7MHz)	
X103	SVQ49U722-S	OSCILLATOR(7. 2MHz)	
		DISPLAY TUBE(S)	
FL901	RSL0138-F	DISPLAY TUBE	
		FUSE(S)	
F1	XBA2C20TB0	FUSE 250V, T2A	(E, EB, EG, GN) ⚠
F1	XBA2C40TB0	FUSE 250V, T4A	(G) ⚠
F2	XBA2C20TB0	FUSE 250V, T2A	(G) ⚠
		SWITCH(ES)	
S701	ESD26840A	VOLTAGE ADJ.	(G) ⚠
S946	EVQ21405R	NUMERIC(5)	
S947	EVQ21405R	CENTER LEVEL(-)	
S948	EVQ21405R	TEST	
S949	EVQ21405R	NUMERIC(4)	
S950	EVQ21405R	NUMERIC(6)	
S951	EVQ21405R	CENTER LEVEL(+)	
S952	EVQ21405R	NUMERIC(7)	
S953	EVQ21405R	REAR LEVEL(-)	
S954	EVQ21405R	CD	
S955	EVQ21405R	TUNER	
S956	EVQ21405R	CENTER MODE	
S957	EVQ21405R	NUMERIC(9)	
S960	EVQ21405R	REAR LEVEL(+)	
S961	EVQ21405R	NUMERIC(8)	
S962	EVQ21405R	NUMERIC(0)	
S963	EVQ21405R	DELAY TIME	
S964	EVQ21405R	PHONO	
S965	EVQ21405R	LOUDNESS	
S966	EVQ21405R	MEMORY	
S967	EVQ21405R	MUTING	
S970	EVQ21405R	TAPE/DCC	
S971	EVQ21405R	VCR2	
S972	EVQ21405R	VCR1	
S973	EVQ21405R	SPEAKERS-B	
S974	EVQ21405R	FM MODE	
S975	EVQ21405R	BAND	
S976	EVQ21405R	DIRECT TUNING	
S978	EVQ21405R	POWER	
S980	EVQ21405R	3 STEREO	
S981	EVQ21405R	SPEAKERS-A	
S982	EVQ21405R	SURROUND	

Ref. No.	Part No.	Part Name & Description	Remarks
S983	EVQ21405R	NUMERIC (3)	
S984	EVQ21405R	NUMERIC (2)	
S985	EVQ21405R	NUMERIC (1)	
S986	EVQ21405R	TUNING MODE	
		RELAY (S)	
RL601-603	RSY0013M-0	RELAY	⚠
RL701, 702	RSY0012-0	RELAY	⚠
RL751	RSY0012-0	RELAY	⚠
		JACK (S) AND TERMINALS	
HP601	RJJ63TA01	HEADPHONES JACK	
JK101	RJH4202M	ANT TERMINAL	
JK401	SJF3068N	PHONO TERMINAL	
JK402	SJF3069N	CD IN/REC OUT TERMINAL	
JK403	SJF3069N	PLAY IN/VCR2 IN TERMINAL	
JK404	SJF3069N	VCR1 OUT/VCR1 IN TERMINAL	
JK406	RJJ33TR01	REMOTE CONTROL OUT TERMINAL	
JK407	SJF3069-3N	TV MONITOR OUT/VCR1/VCR2	
JK601	RJR0054	FRONT SPEAKER (A) TERMINAL	
JK602	RJR0054	FRONT SPEAKER (B) TERMINAL	
JK603	RJR0054	REAR SPEAKER TERMINAL	
JK604	SJF5201-1	CENTER SPEAKER TERMINAL	
JK651	RJS1A7402-1	FAN JACK	
JK791	SJS9236	AC INLET	(E, EB, EG) ⚠
JK791	SJSD16	AC INLET	(GN) ⚠
JK791	SJS9231-1B	AC INLET	(G) ⚠
		CONNECTOR (S) AND SOCKET (S)	
CN101, 102	RJU063W07T	SOCKET (7P)	
CN401, 402	RJU057W007	SOCKET (7P)	
CN501, 502	RJT003K008-1	CONNECTOR (8P)	
CN601	RJT057W004-1	CONNECTOR (4P)	
CN702	RJS1A1703	CONNECTOR (3P)	
CN751	SJS305-1	CONNECTOR (3P)	(E, EB, EG, GN)
CN751	SJS702-1	CONNECTOR (7P)	(G)
CN753-761	RJS1A1101T1	CONNECTOR (1P)	
CN901-905	RJT003K008-1	CONNECTOR (8P)	
CN913	SJT30345JQ	CONNECTOR (3P)	
CN101A	RJT063W07T	CONNECTOR (7P)	
CN102A	RJT063W07T	CONNECTOR (7P)	
CN401A	RJT057W007-1	CONNECTOR (7P)	
CN402A	RJT057W007-1	CONNECTOR (7P)	
CN501A	RJU003K008M1	SOCKET (8P)	
CN502A	RJU003K008M1	SOCKET (8P)	
CN601A	RJU057W004	SOCKET (4P)	
CN701A	RJS1A1704	CONNECTOR (4P)	
CN752A	RJS1A1703	CONNECTOR (3P)	
CN901A	RJU003K008M1	SOCKET (8P)	

Ref. No.	Part No.	Part Name & Description	Remarks
CN902A	RJU003K008M1	SOCKET (8P)	
CN903A	RJU003K008M1	SOCKET (8P)	
CN904A	RJU003K008M1	SOCKET (8P)	
CN905A	RJU003K008M1	SOCKET (8P)	
CN913A	SJS50382JQH	CONNECTOR (3P)	
CN701B	RJS1A1704	CONNECTOR (4P)	
CN752B	RJS1A1703	CONNECTOR (3P)	
CN701C	RJS1A1704	CONNECTOR (4P)	
		GND PLATE	
E401	SNE1004-1	GND PLATE	
E471	RSC0319	GND PLATE	
E601	SNE1004-1	GND PLATE	
E701, 702	EYF52BC	FUSE HOLDER	
E703, 704	EYF52BC	FUSE HOLDER	(G)

■ RESISTORS AND CAPACITORS

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R103	ERDS2TJ101	1/4W 100
R104	ERDS2TJ472	1/4W 4.7K
R105	ERDS2TJ391	1/4W 390
R106	ERDS2TJ474	1/4W 470K
R107	ERDS2TJ331	1/4W 330
R108	ERDS2TJ474	1/4W 470K
R109	ERDS2TJ331	1/4W 330
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ104	1/4W 100K
R113	ERDS2TJ103	1/4W 10K
R114	ERDS2TJ562	1/4W 5.6K
R115	ERDS2TJ561	1/4W 560
R116	ERDS2TJ102	1/4W 1K
R117	ERDS2TJ682T	1/4W 6.8K
R118	ERDS2TJ562	1/4W 5.6K
R119	ERDS2TJ822	1/4W 8.2K
R120	ERDS2TJ473	1/4W 47K
R121	ERDS2TJ242	1/4W 2.4K
R122	ERDS2TJ272T	1/4W 2.7K
R124	ERDS2TJ391	1/4W 390
R125, 126	ERDS2TJ472	1/4W 4.7K
R127	ERDS2TJ103	1/4W 10K
R128	ERDS2TJ820	1/4W 82
R129	ERDS2TJ473	1/4W 47K
R130, 131	ERDS2TJ102	1/4W 1K
R132	ERDS2TJ103	1/4W 10K
R133-137	ERDS2TJ102	1/4W 1K
R139, 140	ERDS2TJ272T	1/4W 2.7K
R141, 142	ERDS2TJ102	1/4W 1K
R143, 144	ERDS2TJ222	1/4W 2.2K
R145, 146	ERDS2TJ821	1/4W 820
R147, 148	ERDS2TJ474	1/4W 470K
R149	ERDS2TJ680T	1/4W 68
R171, 172	ERDS2TJ102	1/4W 1K
R173	ERDS2TJ471	1/4W 470
R175	ERDS2TJ102	1/4W 1K
R176	ERDS2TJ391	1/4W 390
R191	ERDS2TJ103	1/4W 10K E, EB, G, GN
R192	ERDS2TJ122	1/4W 1.2K E, EB, G, GN
R193	ERDS2TJ182	1/4W 1.8K E, EB, G, GN
R194	ERDS2TJ122	1/4W 1.2K E, EB, G, GN
R195	ERDS2TJ223	1/4W 22K E, EB, G, GN
R351, 352	ERDS2TJ471	1/4W 470
R354	ERDS2TJ472	1/4W 4.7K
R355	ERDS2TJ470	1/4W 47
R356	ERDS2TJ102	1/4W 1K
R357	ERDS2TJ470	1/4W 47
R358	ERDS2TJ391	1/4W 390
R359, 360	ERDS2TJ470	1/4W 47
R361	ERDS2TJ391	1/4W 390
R362	ERDS2TJ470	1/4W 47
R363	ERDS2TJ332	1/4W 3.3K
R364	ERDS2TJ561	1/4W 560
R365	ERDS2TJ332	1/4W 3.3K
R366	ERDS2TJ473	1/4W 47K
R369, 370	ERDS1FVJ221T	1/2W 220 ⚠
R401, 402	ERDS2TJ102	1/4W 1K
R405-416	ERDS2TJ102	1/4W 1K
R417, 418	ERDS2TJ473	1/4W 47K
R419-422	ERDS2TJ104	1/4W 100K
R423, 424	ERDS2TJ102	1/4W 1K
R425-427	ERDS2TJ103	1/4W 10K
R440	ERDS1FVJ820T	1/2W 82 ⚠
R441, 442	ERDS2TJ473	1/4W 47K
R443	ERDS2TJ330	1/4W 33
R451, 452	ERDS2TJ224T	1/4W 220K
R453, 454	ERDS2TJ391	1/4W 390
R455, 456	ERDS2TJ563	1/4W 56K
R457, 458	ERDS2TJ271	1/4W 270
R459, 460	ERDS2TJ680T	1/4W 68
R461, 462	ERDS2TJ184T	1/4W 180K
R463, 464	ERDS2TJ123	1/4W 12K
R465, 466	ERDS2TJ563	1/4W 56K
R467-470	ERDS2TJ102	1/4W 1K
R475, 476	ERDS2TJ471	1/4W 470
R477-480	ERDS2TJ474	1/4W 470K
R481, 482	ERDS2TJ272T	1/4W 2.7K
R483, 484	ERDS2TJ392T	1/4W 3.9K
R485, 486	ERDS2TJ223	1/4W 22K
R487, 488	ERDS2TJ392T	1/4W 3.9K
R489, 490	ERDS2TJ222	1/4W 2.2K
R491, 492	ERDS2TJ122	1/4W 1.2K
R493, 494	ERDS2TJ333	1/4W 33K
R495, 496	ERDS2TJ471	1/4W 470
R501, 502	ERDS2TJ222	1/4W 2.2K
R503-506	ERDS2TJ103	1/4W 10K
R507	ERDS2TJ153	1/4W 15K
R509, 510	ERDS2TJ222	1/4W 2.2K
R511, 512	ERDS2TJ152	1/4W 1.5K
R513-516	ERDS2TJ102	1/4W 1K
R517, 518	ERDS2TJ222	1/4W 2.2K
R519	ERDS2TJ152	1/4W 1.5K
R521, 522	ERDS2TJ101	1/4W 100
R523-526	ERDS2TJ102	1/4W 1K
R527, 528	ERDS2TJ394	1/4W 390K
R530	ERDS2TJ103	1/4W 10K
R532	ERDS2TJ103	1/4W 10K
R533-536	ERDS2TJ102	1/4W 1K
R537	ERDS2TJ332	1/4W 3.3K
R539, 540	ERDS2TJ330	1/4W 33
R541, 542	ERDS2TJ182	1/4W 1.8K
R543	ERDS2TJ223	1/4W 22K
R545, 546	ERDS2TJ122	1/4W 1.2K
R547, 548	ERDS1FVJ271T	1/2W 270 ⚠
R551, 552	ERDS2TJ222	1/4W 2.2K
R553, 554	ERDS2TJ104	1/4W 100K
R555	ERDS2TJ562	1/4W 5.6K
R556	ERDS2TJ822	1/4W 8.2K
R557	ERDS2TJ202T	1/4W 2K
R558	ERDS2TJ152	1/4W 1.5K
R559, 560	ERDS2TJ104	1/4W 100K
R561, 562	ERDS2TJ222	1/4W 2.2K
R571, 572	ERDS2TJ102	1/4W 1K
R573, 574	ERDS2TJ394	1/4W 390K
R575, 576	ERDS2TJ104	1/4W 100K
R577-579	ERDS2TJ103	1/4W 10K
R591	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R601, 602	ERDS2TJ681	1/4W 680
R603, 604	ERDS2TJ563	1/4W 56K
R605, 606	ERDS2TJ182	1/4W 1.8K
R607, 608	ERDS2TJ563	1/4W 56K
R609, 610	ERDS2TJ470	1/4W 47
R611, 612	ERDS1FVJ100T	1/2W 10 ⚠
R613, 614	ERDS2TJ391	1/4W 390
R615	ERDS2TJ223	1/4W 22K
R616	ERDS2TJ684	1/4W 680K
R617	ERD2FCVG470T	1/4W 47 ⚠
R618	ERD25FJ101	1/4W 100 ⚠
R619, 620	ERDS2TJ221	1/4W 220
R621	ERDS2TJ684	1/4W 680K
R622	ERDS2TJ154	1/4W 150K
R623	ERDS2TJ103	1/4W 10K
R624	ERDS2TJ472	1/4W 4.7K
R625	ERDS2TJ103	1/4W 10K
R626	ERDS2TJ223	1/4W 22K
R627	ERD25FVJ100T	1/4W 10 ⚠
R628	ERDS2TJ103	1/4W 10K
R629	ERDS2TJ223	1/4W 22K
R630	ERD25FVJ100T	1/4W 10 ⚠
R631, 632	ERDS2TJ222	1/4W 2.2K
R633, 634	ERDS2TJ563	1/4W 56K
R635, 636	ERDS2TJ182	1/4W 1.8K
R637, 638	ERDS2TJ563	1/4W 56K
R639, 640	ERDS2TJ470	1/4W 47

Ref. No.	Part No.	Values & Remarks
R641, 642	ERDS1FVJ100T	1/2W 10 ⚠
R643, 644	ERDS2TJ391	1/4W 390
R645	ERDS2TJ473	1/4W 47K
R646	ERDS2TJ684	1/4W 680K
R647	ERD2FCVG470T	1/4W 47 ⚠
R648	ERD25FJ101	1/4W 100 ⚠
R649, 650	ERDS2TJ221	1/4W 220
R651	ERDS2TJ684	1/4W 680K
R652	ERDS2TJ154	1/4W 150K
R655	ERDS2TJ103	1/4W 10K
R656	ERDS2TJ223	1/4W 22K
R657	ERDS1FVJ100T	1/2W 10 ⚠
R659, 660	ERDS2TJ102	1/4W 1K
R661	ERDS2TJ104	1/4W 100K
R662	ERDS2TJ154	1/4W 150K
R663	ERDS2TJ124T	1/4W 120K
R665, 666	ERG1SJ151E	1W 150
R667-670	ERDS1FVJ680T	1/2W 68 ⚠
R671-676	ERDS2TJ223	1/4W 22K
R677	ERDS2TJ682T	1/4W 6.8K
R678	ERDS2TJ104	1/4W 100K
R679	ERDS2TJ103	1/4W 10K
R680	ERDS2TJ223	1/4W 22K
R681	ERDS2TJ332	1/4W 3.3K
R682	ERDS1FVJ390T	1/2W 39 ⚠
R683	ERDS2TJ103	1/4W 10K
R684	ERDS2TJ153	1/4W 15K
R685, 686	ERDS2TJ333	1/4W 33K
R687	ERDS2TJ103	1/4W 10K
R688	ERDS2TJ222	1/4W 2.2K
R689	ERDS2TJ220T	1/4W 22
R690	ERDS2TJ473	1/4W 47K
R705, 706	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R707	ERDS2TJ332	1/4W 3.3K
R708	ERDS2TJ102	1/4W 1K
R711	ERD25FVJ221T	1/4W 220 ⚠
R714	ERDS2TJ472	1/4W 4.7K
R715, 716	ERDS2TJ1R5T	1/4W 1.5
R717	ERDS2TJ752T	1/4W 7.5K
R718	ERDS2TJ682T	1/4W 6.8K
R719	ERDS1FVJ220T	1/2W 22 ⚠
R721	ERDS2TJ182	1/4W 1.8K
R722, 723	ERDS1FVJ5R6T	1/2W 5.6 ⚠
R724	ERDS2TJ123	1/4W 12K
R725	ERDS2TJ102	1/4W 1K
R726	ERD25FVJ121T	1/4W 120 ⚠
R727	ERD25FVJ180T	1/4W 18 ⚠
R728	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R729	ERDS2TJ152	1/4W 1.5K
R732	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R754	ERDS2TJ102	1/4W 1K
R781	ERD25FVJ180T	1/4W 18 ⚠

Ref. No.	Part No.	Values & Remarks
R785, 786	ERDS2TJ332	1/4W 3.3K
R787	ERDS2TJ471	1/4W 470
R788	ERDS2TJ682T	1/4W 6.8K
R901	ERDS2TJ102	1/4W 1K
R902	ERDS2TJ681	1/4W 680
R903, 904	ERDS2TJ104	1/4W 100K
R905, 906	ERDS2TJ103	1/4W 10K
R907-911	ERDS2TJ104	1/4W 100K
R920	ERDS2TJ271	1/4W 270
R921	ERDS2EJ121	1/4W 120
R922	ERDS2TJ472	1/4W 4.7K
R923	ERDS2TJ102	1/4W 1K
R926	ERDS2TJ122	1/4W 1.2K
R927	ERDS2TJ181T	1/4W 180
R928	ERDS2TJ222	1/4W 2.2K
R929	ERDS2TJ562	1/4W 5.6K
R930, 931	ERDS2TJ101	1/4W 100
R932-934	ERDS2TJ102	1/4W 1K
R935	ERDS2TJ473	1/4W 47K
R936-944	ERDS2TJ102	1/4W 1K
R946-949	ERDS2TJ103	1/4W 10K
R950	ERDS2TJ102	1/4W 1K
R951	ERDS2TJ122	1/4W 1.2K
R952	ERDS2TJ152	1/4W 1.5K
R953	ERDS2TJ182	1/4W 1.8K
R954	ERDS2TJ222	1/4W 2.2K
R955	ERDS2TJ332	1/4W 3.3K
R956	ERDS2TJ472	1/4W 4.7K
R957	ERDS2TJ682T	1/4W 6.8K
R960	ERDS2TJ102	1/4W 1K
R961	ERDS2TJ122	1/4W 1.2K
R962	ERDS2TJ152	1/4W 1.5K
R963	ERDS2TJ182	1/4W 1.8K
R964	ERDS2TJ222	1/4W 2.2K
R965	ERDS2TJ332	1/4W 3.3K
R966	ERDS2TJ472	1/4W 4.7K
R967	ERDS2TJ682T	1/4W 6.8K
R970	ERDS2TJ102	1/4W 1K
R971	ERDS2TJ122	1/4W 1.2K
R972	ERDS2TJ152	1/4W 1.5K
R973	ERDS2TJ182	1/4W 1.8K
R974	ERDS2TJ222	1/4W 2.2K
R975	ERDS2TJ332	1/4W 3.3K
R976	ERDS2TJ472	1/4W 4.7K
R977	ERDS2TJ682T	1/4W 6.8K
R978	ERDS2TJ123	1/4W 12K
R980	ERDS2TJ102	1/4W 1K
R981	ERDS2TJ122	1/4W 1.2K
R982	ERDS2TJ152	1/4W 1.5K
R983	ERDS2TJ182	1/4W 1.8K
R984	ERDS2TJ222	1/4W 2.2K
R985	ERDS2TJ332	1/4W 3.3K

Ref. No.	Part No.	Values & Remarks
R986	ERDS2TJ472	1/4W 4.7K
R990	ERDS2TJ153	1/4W 15K
R991	ERDS2TJ103	1/4W 10K
R993, 994	ERDS2TJ102	1/4W 1K
R1004, 1005	ERDS2TJ472	1/4W 4.7K
R1006	ERDS2TJ104	1/4W 100K
R1008, 1009	ERDS2TJ224T	1/4W 220K
R1010	ERDS2TJ471	1/4W 470
R1011-1013	ERDS2TJ473	1/4W 47K
R1014, 1015	ERDS2TJ223	1/4W 22K
R1016	ERDS2TJ752T	1/4W 7.5K
R1017	ERDS2TJ153	1/4W 15K
R1018	ERDS2TJ202T	1/4W 2K
R1019, 1020	ERDS2TJ473	1/4W 47K
R1021	ERDS2TJ153	1/4W 15K
R1022	ERDS2TJ752T	1/4W 7.5K
R1023	ERDS2TJ202T	1/4W 2K
R1025, 1026	ERDS2TJ222	1/4W 2.2K
R1201, 1202	ERDS2TJ102	1/4W 1K
R1204-1216	ERDS2TJ102	1/4W 1K
R1405-1410	ERDS2TJ153	1/4W 15K
R1411	ERDS2TJ272T	1/4W 2.7K
R1431	ERDS2TJ105T	1/4W 1M
R1434	ERDS2TJ822	1/4W 8.2K
R1435	ERDS2TJ103	1/4W 10K
R1449	ERDS2TJ102	1/4W 1K
R1450, 1451	ERDS2TJ274	1/4W 270K
R1452	ERDS2TJ561	1/4W 560
R1453	ERDS2TJ473	1/4W 47K
R1454	ERDS2TJ472	1/4W 4.7K
R1455	ERDS2TJ153	1/4W 15K
R1456	ERDS2TJ273	1/4W 27K
R1457	ERDS2TJ103	1/4W 10K
R1458	ERDS2TJ332	1/4W 3.3K
R1459	ERDS2TJ123	1/4W 12K
R1460	ERDS2TJ181T	1/4W 180
R1462	ERDS2TJ822	1/4W 8.2K
R1463	ERDS2TJ473	1/4W 47K
R1464-1466	ERDS2TJ474	1/4W 470K
R1467-1469	ERDS2TJ332	1/4W 3.3K
R1472	ERDS2TJ682T	1/4W 6.8K
R1473	ERDS2TJ222	1/4W 2.2K
R1474-1476	ERDS2TJ474	1/4W 470K
R1477	ERDS2TJ222	1/4W 2.2K
R1478	ERDS2TJ682T	1/4W 6.8K
		CAPACITORS
C101	ECBT1C103NS5	16V 0.01U
C103	ECBT1C103NS5	16V 0.01U
C104	ECBT1H102KB5	50V 1000P
C105	ECBT1H470J5	50V 47P

Ref. No.	Part No.	Values & Remarks
C106	ECBT1C103NS5	16V 0.01U
C107	ECBT1H473ZF5	50V 0.047U
C108	ECBT1H100JC5	50V 10P E, EB, G, GN
C108	ECBT1H8R2KC5	50V 8.2P EG
C109, 110	ECBT1C103NS5	16V 0.01U
C111	ECEA1EKA4R7B	25V 4.7U
C112	ECBT1C103NS5	16V 0.01U
C113	ECBT1H102KB5	50V 1000P
C114	ECEA1HKA3R3B	50V 3.3U
C115	ECEA1CKA100B	16V 10U
C116	ECBT1C822MS5	16V 8200P
C117	ECQP2A471JZT	100V 470P
C118, 119	ECQB1H103JF3	50V 0.01U
C120, 121	ECEA1HKA010B	50V 1U
C122	ECEA1HKA2R2B	50V 2.2U
C123	ECEA1HKA010B	50V 1U
C124	ECBT1H102KB5	50V 1000P
C125	ECBT1H150JC5	50V 15P
C126	ECBT1H473ZF5	50V 0.047U
C127	ECEA1CKA220B	16V 22U
C128	ECBT1C103NS5	16V 0.01U
C129, 130	ECEA0JKA101B	6.3V 100U
C131	ECBT1C103NS5	16V 0.01U
C132	ECBT1H102KB5	50V 1000P
C133	ECBT1H150JC5	50V 15P
C134	ECBT1H180JC5	50V 18P
C135, 136	ECBT1C103KS5	16V 0.01U
C137, 138	ECBT1H561KB5	50V 560P
C139, 140	ECQB1H682JF3	50V 6800P
C141-144	ECEA1HKA010B	50V 1U
C145	ECBT1H220JC5	50V 22P
C146	ECBT1H331KB5	50V 330P
C147	ECBT1H102KB5	50V 1000P
C148	ECBT1C103NS5	16V 0.01U
C149	ECBT1H104ZF5	50V 0.1U
C171	ECBT1C103NS5	16V 0.01U
C172	ECBT1H331KB5	50V 330P
C173	ECEA1CKA220B	16V 22U
C174	ECEA1CKA101B	16V 100U
C181	ECBT1H471KB5	50V 470P
C351, 352	ECEA0JKA101B	6.3V 100U
C353	ECEA0JKA470B	6.3V 47U
C401	ECEA1VKA4R7B	35V 4.7U
C402, 403	ECBT1E103ZF	25V 0.01U
C404	ECEA1VKA4R7B	35V 4.7U
C405, 406	ECBT1H101KB5	50V 100P
C409, 410	ECEA1CKA220B	16V 22U
C411, 412	ECBT1H101KB5	50V 100P
C413, 414	ECEA1CKA100B	16V 10U
C415, 416	ECBT1E103ZF	25V 0.01U
C417, 418	ECBT1H101KB5	50V 100P
C419-422	ECBT1H331KB5	50V 330P

Ref. No.	Part No.	Values & Remarks
C423-426	ECBT1H101KB5	50V 100P
C427, 428	ECBT1H221KB5	50V 220P
C431, 432	ECEA1CKA100B	16V 10U
C440	ECBT1E103ZF	25V 0.01U
C451, 452	ECEA1VKA4R7B	35V 4.7U
C453, 454	ECBT1H100JC5	50V 10P
C455, 456	ECBT1H102KB5	50V 1000P
C457, 458	ECEA1AKA330B	10V 33U
C459, 460	ECFR1E223KR	25V 0.022U
C461, 462	ECFR1E682KR	25V 6800P
C463, 464	ECEA1VKA4R7B	35V 4.7U
C465, 466	ECBT1E103ZF	25V 0.01U
C469, 470	ECBT1H181KB5	50V 180P
C471, 472	ECEA1HKA3R3B	50V 3.3U
C475, 476	ECBT1H150J5	50V 15P
C477, 478	ECBT1H221KB5	50V 220P
C479, 480	ECBT1H470J5	50V 47P
C481-484	ECEA1VKA4R7B	35V 4.7U
C485, 486	ECFR1E123KR	25V 0.012U
C487, 488	ECQV1H683JM3	50V 0.068U
C489, 490	ECFR1E562KR	25V 5600P
C491, 492	ECFR1E273KR	25V 0.027U
C495, 496	ECBT1E103ZF	25V 0.01U
C501, 502	ECFR1E333KR	25V 0.033U
C503, 504	ECEA1CKA220B	16V 22U
C505	ECEA1CKA100B	16V 10U
C506, 507	ECEA0JKA101B	6.3V 100U
C518	ECBT1H104ZF5	50V 0.1U
C519	ECBT1E103ZF	25V 0.01U
C541, 542	ECA1JM330B	63V 33U
C543, 544	ECBT1C332KR5	16V 3300P
C551, 552	ECEA1HKA3R3B	50V 3.3U
C553, 554	ECBT1E103ZF	25V 0.01U
C555, 556	ECBT1H101KB5	50V 100P
C557, 558	ECBT1H221KB5	50V 220P
C559, 560	ECEA1HKA3R3B	50V 3.3U
C561, 562	ECEA1CKA100B	16V 10U
C571, 572	ECBT1E103ZF	25V 0.01U
C573	ECEA1HKA3R3B	50V 3.3U
C591, 592	ECEA0JKA101B	6.3V 100U
C593, 594	ECFR1E104KR	25V 0.1U
C595	ECBT1E103ZF	25V 0.01U
C601, 602	ECEA1EKN3R3B	25V 3.3U
C603, 604	ECBT1H331KB5	50V 330P
C605, 606	ECEA1CKN220B	16V 22U
C607, 608	ECCR1H120K5	50V 12P
C609, 610	ECBT1H221KB5	50V 220P
C611, 612	ECQV1H473JM3	50V 0.047U
C613	ECA1HM470B	50V 47U
C614	ECQV1H474JM3	50V 0.47U
C615	ECEA2AU100	100V 10U
C616	ECEA2AN2R2SB	100V 2.2U

Ref. No.	Part No.	Values & Remarks
C621-624	ECKT1H223ZF	50V 0.022U
C625-627	ECKR1H103ZF5	50V 0.01U
C631, 632	ECEA1VKA4R7B	35V 4.7U
C633, 634	ECBA1H681KB5	50V 680P
C635, 636	ECEA1CKA220B	16V 22U
C637, 638	ECCR1H120K5	50V 12P
C639, 640	ECBT1H221KB5	50V 220P
C641, 642	ECQV1H473JM3	50V 0.047U
C643	ECA1HM470B	50V 47U
C644	ECA1JM330B	63V 33U
C645	ECEA2AU100	100V 10U
C646	ECEA2AN2R2SB	100V 2.2U
C651	ECEA1HKA2R2B	50V 2.2U
C652	ECEA1CKA100B	16V 10U
C653	ECBT1E223ZF	25V 0.022U
C655	ECEA0JKA221B	6.3V 220U
C701	ECBT1E103ZF	25V 0.01U
C702	ECQE2104KF3	250V 0.1U
C703, 704	ECES66V802UZ	66V 8000U ⚠
C707	ECA1VM101B	35V 100U
C708	ECKR1H103ZF5	50V 0.01U
C709	ECEA1CKA330B	16V 33U
C710	ECBT1E103ZF	25V 0.01U
C711	ECKR1H103ZF5	50V 0.01U
C712	ECA1HM470B	50V 47U
C713	ECKR1H103ZF5	50V 0.01U
C715	ECEA1CKA470B	16V 47U
C716	ECEA2AU100	100V 10U
C722	ECQE2104KF3	250V 0.1U
C751	ECKWNS103ZVS	500V 0.01U ⚠
C752	ECKR1H103ZF5	50V 0.01U
C753	ECA1EM102B	25V 1000U ⚠
C754	ECBT1E103ZF	25V 0.01U
C756	ECBT1E103ZF	25V 0.01U
C757	ECEA1CKA470B	16V 47U
C758	ECEA1AKA101B	10V 100U
C771, 772	ECA1VM331B	35V 330U ⚠
C795, 796	ECEA2AU100	100V 10U
C891	ECFR1E392KR	25V 3900P
C901	ECA0JM102B	6.3V 1000U
C902, 903	ECBT1E103ZF	25V 0.01U
C904	ECA0JM471B	6.3V 470U
C906	ECEA0JKA101B	6.3V 100U
C907	ECEA1CKA100B	16V 10U
C908	ECBT1E103ZF	25V 0.01U
C911, 912	ECEA2AU100	100V 10U
C913, 914	ECEA1VKA100B	35V 10U
C916	ECEA1HKA010B	50V 1U
C920	ECEA1HKA010B	50V 1U
C921-928	ECBT1H331KB5	50V 330P
C929, 930	ECBT1H101KB5	50V 100P
C935	ECEA0JKA101B	6.3V 100U

Ref. No.	Part No.	Values & Remarks
C936	ECBT1E103ZF	25V 0.01U
C937-942	ECBT1H101KB5	50V 100P
C944	ECBT1H101KB5	50V 100P
C1001	ECBT1E103ZF	25V 0.01U
C1002	ECEA1CKA100B	16V 10U
C1003-1005	ECEA1HKA010B	50V 1U
C1006	ECEA1HKA3R3B	50V 3.3U
C1007	ECFR1E153KR	25V 0.015U
C1008	ECFR1E103KR	25V 0.01U
C1009	ECBA1H681KB5	50V 680P
C1010	ECQV1H104JM3	50V 0.1U
C1012, 1013	ECQV1H104JM3	50V 0.1U
C1014	ECEA1HKAR33B	50V 0.33U
C1015	ECBA1H681KB5	50V 680P
C1016, 1017	ECEA1VKA4R7B	35V 4.7U
C1018	ECEA1HKAR15B	50V 0.15U
C1019	ECEA1HKA3R3B	50V 3.3U
C1020	ECQV1H154JM3	50V 0.15U
C1021, 1022	ECEA1CKA470B	16V 47U
C1023, 1024	ECEA1HKA3R3B	50V 3.3U
C1025	ECEA1HKAR33B	50V 0.33U
C1026, 1027	ECQV1H104JM3	50V 0.1U

Ref. No.	Part No.	Values & Remarks
C1028	ECBA1H681KB5	50V 680P
C1029, 1030	ECEA1VKA4R7B	35V 4.7U
C1031	ECEA1HKAR15B	50V 0.15U
C1032	ECEA1HKA3R3B	50V 3.3U
C1033	ECQV1H154JM3	50V 0.15U
C1035	ECQV1H474JM3	50V 0.47U
C1036	ECBT1E103ZF	25V 0.01U
C1037, 1038	ECEA1CKA101B	16V 100U
C1039, 1040	ECBT1E103ZF	25V 0.01U
C1403	ECEA1HKA010B	50V 1U
C1404	ECFR1E332KR	25V 3300P
C1405	ECBT1H561KB5	50V 560P
C1406	ECQV1H104JM3	50V 0.1U
C1407	ECEA1CKA470B	16V 47U
C1408, 1409	ECQV1H474JM3	50V 0.47U
C1410	ECQV1H104JM3	50V 0.1U
C1411	ECFR1E332KR	25V 3300P
C1412	ECBT1H561KB5	50V 560P
C1414	ECFR1E123KR	25V 0.012U
C1415	ECBT1H104ZF5	50V 0.1U
C1416	ECEA0JKA221B	6.3V 220U
C1451	ECBT1H101KB5	50V 100P

Ref. No.	Part No.	Values & Remarks
C1457, 1458	ECEA1CKA100B	16V 10U
C1459	ECEA1CKA101B	16V 100U
C1460	ECFR1E822KR	25V 8200P
C1461	ECEA1CKA220B	16V 22U
C1462	ECFR1E273KR	25V 0.027U
C1463	ECFR1E472KR	25V 4700P
C1464	ECEA1CKA100B	16V 10U
C1465	ECBT1E103ZF	25V 0.01U
C1466	ECEA1HKA0R1B	50V 0.1U
C1468	ECEA1HKAR33B	50V 0.33U
C1469	ECFR1E333KR	25V 0.033U
C1470	ECEA1HKA3R3B	50V 3.3U
C1472, 1473	ECEA1HKA3R3B	50V 3.3U
C1474, 1475	ECBT1E103ZF	25V 0.01U
C1476-1478	ECBT1H181KB5	50V 180P
C1479, 1480	ECEA1CKA470B	16V 47U
C1481-1483	ECEA1HKA3R3B	50V 3.3U
C1489, 1490	ECEA1HKA3R3B	50V 3.3U
C1493	ECQV1H563JM3	50V 0.056U
C1494	ECEA1CKA100B	16V 10U

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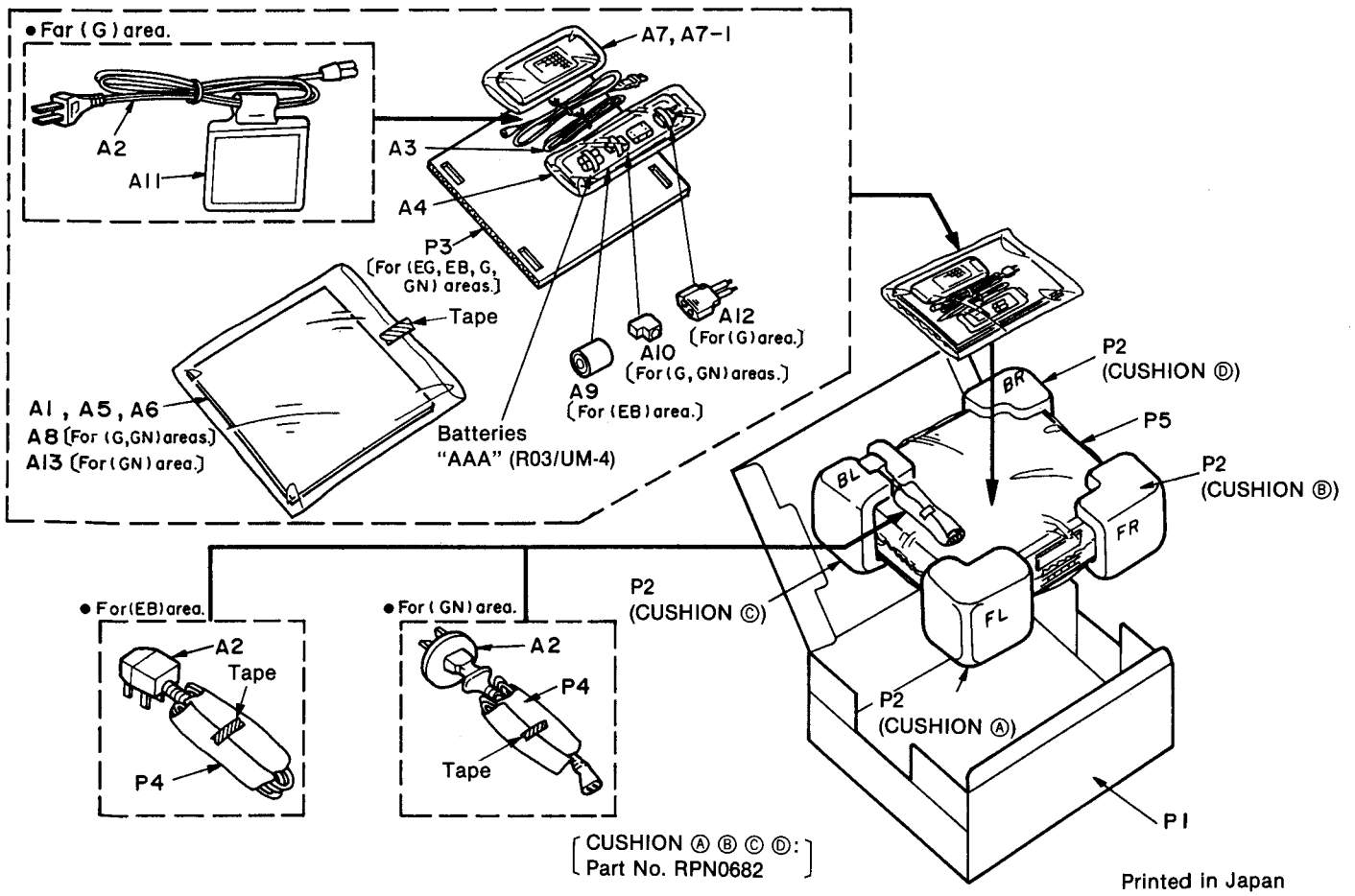

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